

CLINICAL MEDICINE AND SURGERY

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• Editor •

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EDITORIAL

Dr. John H. J. Upham

President-elect of the A.M.A.

DR. John H. J. Upham, who was chosen by the House of Delegates as president-elect of the American Medical Association at its annual session at Kansas City in May, was born in Trenton, N. J., Aug. 12, 1871, and received his preliminary education in his native city, after which he entered the University of Pennsylvania, receiving a certificate in biology in 1891 and his medical degree in 1894.

In order to obtain a wider variety of experience, he served a two-year internship at Johns Hopkins Hospital, in Baltimore, before entering upon the practice of his profession at Columbus, Ohio.

In 1897 he was appointed instructor in medicine at Starling Medical College, Ohio, and served in that capacity, taking a year off for graduate study in Prague, Leipzig and Berlin, until his promotion to the associate professorship of medicine and clinical medicine, in 1902. In 1908 he was made a full professor, which position he held until 1914, when he was called to the chair of medicine at Ohio State University College of Medicine. This position he still holds, in

addition to being dean of the College, which latter honor he received in 1927.

From 1907 to 1913, Dr. Upham was secretary of the Ohio State Medical Association and editor of its journal; in 1904 he became president of the Association; and since then has been chairman of its legislative committee. Since 1913 he has been a member of the Ohio State Medical Board, and in 1922 was on the advisory committee of the American Red Cross.

Always a willing and active worker in the American Medical Association, he served a term, beginning in 1922, on its Judicial Council, and was, for twelve years, a member of its Board of Trustees of which he became chairman in 1933. His able services have well earned for him the highest honor which the Association can bestow.

Dr. Upham is a tall, slender, dignified, kindly and fatherly-looking man—a typical example of the deeply loved and respected generation of physicians which seems, unfortunately, to be passing. He will be an ornament to the high position to which he has been chosen.

Exorcising the "Curse of Eve"

WHEN, on November 4, 1847, Sir James Young Simpson, one of the first and greatest of a long line of famous obstetricians (then called "men midwives"), first used chloroform for mitigating the pains of labor, the sanctimonious Londoners, remembering the sixteenth verse of the third chapter of Genesis, held up their hands in pious horror at one who would subvert the will of God by exorcising the "Curse of Eve." However, Queen Victoria, being then big with child, allowed Simpson to use his charm on her, and that settled the matter, for that time and place, for "The Queen can do no wrong."

Apparently, the question is not yet settled for certain types of American obstetricians, and there is at least a flavor of the "Curse of Eve" superstition in the rather emotional forthputtings of some of them.

Of course, we now realize that chloroform is too dangerous for general use in a physiologic process like labor, especially now that we have methods which will do the work better and far more safely. Equally of course, the development of these newer and safer methods, beginning with the "twilight sleep," have been eagerly watched by all women and commented upon rather fulsomely by the national magazines which they read.

But it did not require popular articles to make women crave relief from the sufferings attendant upon childbirth, and now that such relief is safely available (even though it may sometimes be overdone and may lead some unwise accoucheurs into unnecessary surgical intervention), the women will not forego its blessings if it is at all possible to obtain them, and the physicians who advocate letting them "suffer it out," in order to obtain the spiritual (?) benefits of childbearing (which, we submit, although they may be very real, have nothing to do with the purely physical pain of delivery) will not add to their popularity by so doing.

Technically it is best not to begin the analgesia much before the second stage of labor is reached, and then to give just enough of the selected drug or drugs to accomplish the desired purpose. Many now give 3 grains of Nembutal (pentobarbital), and follow it with the modified Gwathmey analgesia—oil, ether, and quinine, by rectum. There are other good and safe methods, to which we call attention from time to time.

Unnecessary surgical intervention ("meddlesome midwifery") is unjustifiable, but modern analgesia and amnesia should decrease this, rather than increase it, by carrying the mother through to a normal delivery without the anguish, to herself and her family, which often tempts the sympathetic physician to shorten her travail by methods which his professional conscience cannot approve.

Analgesia in labor has come to stay, old-fashioned obstetricians to the contrary notwithstanding, and the wise physician who handles such cases will familiarize himself with a few of the modern drugs offered for that purpose, select those which he finds safest and most effective, and give all the relief possible, without letting the fact that such relief is available interfere with the exercise of his sound professional judgment.

Two patients who have the same symptoms are no more alike than two men who wear the same clothes.
—DR. JOSEPH COLLINS.

How to Live a Century

PRACTICALLY everything in life that is really worth doing requires the mastery of a more or less exacting technic for its successful accomplishment. Everyone recognizes this fact in connection with the learned professions and, to a less acute degree, in connection with the various arts and sciences; but how many ever think seriously about the technics and serious and prolonged training involved in the achievement of a successful marriage, fame as a writer or lecturer, a championship in golf, tennis, the pugilistic ring, or any of the other sports—and even in such prosaic undertakings as those of the carpenter, the plumber, the steel worker or the automechanic?

Living a century—real living; not merely existing—is a goal which is sometimes gained by the accident of a peculiarly fortunate heredity or by a fortuitously chosen mode of life which does not exhaust the vital forces with undue rapidity. Most of us, however, can not attain it except by learning certain special technics and undertaking a special type of training.

For those who have decided that a hundred years of life are sufficiently worth while to warrant *working* and *studying* for them, a school is now available, in Oklahoma City, where the methods to this end are taught.

This "School for Maturates," which is open

only to men and women of seventy years or more, now has an enrollment of more than 900. The oldest "boy" pupil is 111 years old, the oldest "girl," 102. There are about forty in the nineties, and about 300 in the eighties. There are no dues, tuition fees, nor charges of any kind, as the movement is privately financed.

In this remarkable institution, the pupils are taught how to eat, sleep, rest, exercise, and especially how to read, study, and work. They are encouraged and *shown how* to develop a real, active, and *participating* interest in things, people and events, and instructed in the methods and technics of various creative handicrafts, so that they will not lose vital touch with their environment nor ever be without *something to do*.

Every physician should possess a good working knowledge of the elements of the curriculum of this unusual school; not because many of his patients will ever be centenarians, but because this knowledge will enable him to make his own declining years, and those of many who are under his care, brighter, happier, and more useful and valuable, to the individuals themselves and to society.

A healthy old fellow who is not a fool is the happiest creature living.—STEELE.

Hobby Therapy

THE physician who habitually studies his patients as men and women, rather than merely as male and female biped mammals—who considers the emotions, the minds, and the souls of those who apply to him for aid, as well as their physical bodies—is constantly impressed, and frequently appalled, by the paucity and narrowness of their interests and activities.

Illiteracy, in the technical sense of that word, is relatively rare in the United States, and yet there are millions of people in our land who *do not know how to read*, in any adult sense, though they may know the English or some other alphabet perfectly well and are able to pronounce the words encountered in a newspaper and to define the simpler and more common ones.

In addition to and often including some of these, there are other millions who have no knowledge whatever of any activities outside of the limited field of their daily round, and no interests beyond board, bed, and clothes, with an occasional "good time," in

the form of an alcoholic debauch or some other form of puerile amusement.

The sick man is *sick all over*, not merely in his physical organs, and the physical signs he presents are frequently the results of disturbances of his body chemistry, due to starvation and upsets of his psychic faculties. *Everybody* needs one or more *real hobbies* to keep him in or restore him to a state of genuine health. So hobby therapy should be a part of the professional armamentarium of every physician, and may be classified as "occupational therapy," "bibliotherapy," and any other divisions which the imagination may suggest.

Earth is the mother of all, and like Antaeus of the old Greek hero tales, who, whenever he was thrown to the earth (his mother, Terra or Ge) found his strength renewed from her bosom, so, even today, many of those who will turn their thoughts toward the soil and what springs from it, and their energies toward "making two blades of grass grow where one grew before," will find solace and healing. Truly, gardening is a great and powerful medicine!

It may be a vegetable garden, with its economically valuable by-products. We have known an intelligent professional man who was in so precarious a state of health that the least upset in his routine kept him at home or sent him to bed. Finally he "broke down," and his doctor prescribed farming on a small scale. He is now a robust citizen and, while not a plutocrat, lives better than many of his former wealthy colleagues.

It may be a flower garden of the old-fashioned sort, with all kinds of posies requiring varied care, or a specialized bed of gladioli, dahlias, chrysanthemums, or what one will; or, perchance, a rock garden, a water garden, a clump of shrubs, or something other; or maybe the trimming and surgical treatment of trees. The variety here is sufficient to meet every individual taste and need.

It may be the birds or the insects that inhabit the garden which will call out the enthusiasm of the ailing one; or even the soil and climate, which have so profound an influence upon the garden.

Nor need this work be confined to the warmer seasons. A relatively insignificant outlay of cash will provide a tiny "greenhouse," which can be tacked on to the garage or the kitchen and will give a field of horticultural operations when the snow lies deep. Even a "hot-bed" will permit the

gardening to begin in late February or early March, according to the location and the season. And then, one can read and study the books and catalogues by the fireside on a December evening.

The therapeutically valuable hobby must be one to which the patient turns with the same eager enthusiasm which makes a child rush out to his play. The selection of such a hobby requires an even wider knowledge and deeper understanding on the part of the physician than does the judicious choice of an effective drug or surgical procedure, but the results amply repay the effort.

A hobby, to be of value, must be *ridden*, hard and continuously—must be *studied* as well as practiced—until its devotee is an *expert* in it, though he may never decide to become a professional.

These are merely a few random suggestions which, if diligently followed up, will bring any physician enhanced professional prestige and correspondingly improved fiduciary status.

Physicians who concentrate too much on the symptoms of their patients send them away with added apprehension, with continued invalidism and physical and mental ineffectiveness.—Dr. C. F. MARTIN.

Tooth-Saving Diet

IT is rare that an article from any source but a medical publication is abstracted or commented upon editorially in these pages (except in the department, *Facts and Comments*), but the science articles in *The Literary Digest* are generally recognized as authoritative and the following bit of information, which appears in the issue for June 27, 1936, appears

to be of sufficient importance to warrant its consideration and preservation.

Drs. Charles L. Drain and Julian D. Boyd, of the Children's Hospital, Iowa City, Ia., have discovered (more or less by accident) a diet which, if given to mothers during pregnancy and followed up

with young children will prevent the appearance of dental caries, and if followed carefully by adults will stop the progress of that condition. They do not yet know what factor in the diet does the work, but the combination is clinically successful.

The essential feature of the Drain-Boyd diet is the daily consumption of one quart of milk, one egg, one teaspoonful of cod-liver oil, one ounce of butter, one orange, and one or more servings of succulent vegetables, plus any other foods which are permitted by the physician and desired by the patient. Candy is permitted only after meals.

The daily diet for adults contains, as a basis, one quart of milk; one or two eggs; one

serving of meat, fish, chicken or liver; 2 vegetables, both leafy or one selected from the root vegetables and one leafy; one orange, apple or tomato; one additional fruit; one teaspoonful of cod-liver oil; and six teaspoonfuls of butter. Acceptable additional foods include bread, cereals and potatoes. Listed as *undesirable* are spices, coffee, tea, soft drinks, pop-corn, rich pastries, nuts, dried meats, beans and other dried foods, wieners and pickles. Sugar should be used sparingly.

It would seem that this diet might profitably be tried and the results recorded and reported because the teeth are organs whose importance cannot well be overestimated, and dental caries is practically universal among the people of the United States.

NEXT MONTH

Dr. Charles F. Geschickter, of Baltimore, Md., will resume his instructive series of articles on "The A-B-C of Cancer," which has been interrupted for several months, with a discussion of tumors of the nervous system.

Dr. James H. Hutton, of Chicago, will give an important presentation of the treatment of hypertension by irradiating the pituitary and adrenals with small doses of x-rays.

Dr. Ellis Powell, of West Monroe, La., will deal with the relations between the various endocrine glands and hyperinsulinism.

COMING SOON

"The Treatment of Vegetative Excitation," by Drs. A. Jores and Cl. Goyert, Rostock, Germany.

"Gonorrheal Infections of the Bladder and Kidneys," by Winfield Scott Pugh, M.D., New York City.

(Dr. Winters' article on the industrial aspect of hernias, announced for August, will appear very shortly.)

LEADING ARTICLES

Surgery of the Stomach*

Lane B. Kline, M.D., F.A.C.S., Newington, Conn.

THERE are three phases to any surgical procedure: preoperative, operative and post-operative. This is particularly true in surgery of the stomach, for here, despite what is done at operation, the outcome often hangs on the preparation, the subsequent care, or perhaps both. The timeworn saw, "the operation was a success but the patient died," has real meaning. Too often the tedium of pre-operative and postoperative care is left to chance or consigned to the outer fringes of attention. In this brief discussion these three phases will be kept in mind as essential to complete surgical technic.

The three operations most common to gastric surgery are the repair of perforation, subtotal resection, and gastroenterostomy, or more properly, gastrojejunostomy. There are many variations to each of these operations, and combinations of more than one are often done. I shall not attempt to describe all of them, as they are amply discussed in the literature. Only methods that have proved trustworthy in my experience will be set forth at this time, together with some of the pitfalls and errors which should be avoided.

Perforated Gastric Ulcer

A careful, studied survey of the history, symptoms, and physical findings must be emphasized at the outset, as necessary prerequisites to serious surgery. Even in the urgency of perforated ulcer, much of this basic information may be gathered by any well-organized surgical team. In this condition time is, of course, an important factor, as the best chances are realized if the operation is performed within six hours. Usually the stomach is empty or comparatively so, due to anorexia incident to irritation just prior to perforation. However, I have witnessed perforations in the presence of a full stomach, with foodstuff free in the peritoneal cavity. No attempt should be made to empty the stomach nor is an enema necessary.

Once the diagnosis is concluded and the decision to operate is made, a relieving and quieting dose of morphine is given, but not before. Quiet and physical repose by the

patient is important. Clothing is removed with the least possible disturbance. Shaving the abdomen and lower chest is to be carefully executed and transportation to the operating room is made with a minimum of body motion. Shock may call for external heat, Trendelenburg position, epinephrine, or intravenous injections of glucose (dextrose) solution. A slow pulse may be misleading. Use the simpler methods before resorting to injections, especially in hypertension. Local anesthesia may be used, or Avertin. I prefer spinal anesthesia, given with the patient curled on his right side. Oil and debris in the skin of the operative field are dissolved with benzene and wiped off with sterile gauze, and tincture iodine applied, which in turn is removed by alcohol.

The incision is made over the site of the suspected perforation. If the premises suggest duodenal or pyloric ulcer, which, as is well known, are most common, a right upper rectus incision is used. If the history is meager and symptoms unreliable, with a rigid abdomen to obscure physical findings, the question arises whether we are dealing with acute appendicitis or a perforated duodenal ulcer, and the answer cannot be given forthright with certainty. In this dilemma—and it is a dilemma, theories to the contrary notwithstanding—I use a right-border rectus appendix incision; the reason being that, should it prove to be appendicitis, this proper incision has been made; if perforation, an upper rectus incision may then be made. To use the high incision at first, exposing the upper abdomen in the presence of a suppurative or gangrenous appendix, we needlessly expose a vulnerable area to contamination.

If the patient is operated upon within a few hours, the disturbance is usually quite limited. I have had the unusual experience of operating upon a patient with a perforation five days old. His chief concern was inability to stand erect, when going across the street to the restaurant. Foodstuff was found everywhere within the peritoneal cavity at operation. The outcome was fatal.

Often exudate and food particles are confined above the duodenum and along the lesser curvature of the stomach. The lower reaches of the peritoneum, if involved, are

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often reacting to chemical irritation of digestive juices, rather than to infection. Packing off the area with taped sponges should be done cautiously, as infected material may be spread in this way.

Inspect the area and clean it of all offending material. Here the quiet abdomen of spinal anesthesia is helpful. Close the perforation with Lambert sutures that grasp the muscular layer, using a No. 1, atraumatic, chromic suture on a curved needle. Because of inflammatory reaction the tissues are friable and a good "hold" is necessary. After closure of the perforation the area is covered by a purse-string suture to the peritoneum and, if necessary, the more mobile omental borders may be used. A final survey is made to insure that all foreign particles are removed, with particular attention to subphrenic areas; and one should attempt nothing else. A gastroenterostomy is not done at this time. Do not explore uninvolved areas. Place a Penrose drain and close the wound.

In cases coming late or where large quantities of food particles are widely distributed, the exigencies of the situation dictate the terms of procedure and the placing of counter drains. But in any case, never manipulate more than is absolutely necessary. Pick out foreign particles, if possible, rather than wash or irrigate, as the latter tends to disseminate infection and foreign particles.

Postoperative care consists of giving nothing by mouth for at least twenty-four hours. Body fluids and nutrition are maintained by five-percent dextrose solution, 1000 cc., intravenously, twice daily, and a Murphy drip of physiologic saline solution, one hour on and one hour off. Morphine, or preferably Dilaudid, may be administered, in quantities and frequencies only sufficient to prevent suffering. No attempt should be made to "lock the bowels." In fact, the reverse is desirable and, for this purpose, Pitressin is used every 2 hours. This reestablishes normal peristalsis, does not, of itself, spread infection, but empties the gut, promotes necessary circulation, prevents the more deadly ileus, absorption of toxic materials, necrosis and vomiting. As soon as anesthesia permits, the surgical bed should be cranked for the Fowler position and to furnish the comfortable kink to the knees.

Success depends on careful attention to detail throughout. No set rules are to be followed blindly. Everything is subject to alteration, in its application to a given case. Meddlesome and overzealous treatment fatigues the patient and sometimes interrupts the natural forces of repair.

Sub-Total Gastric Resection

Sub-total gastric resection is performed for extensive ulcer or carcinoma. Resection is growing in favor for the treatment of ulcer.

Here time is permitted for a complete, detailed study of the patient. In addition to gastro-intestinal x-ray studies and gastric content analysis, it is important to know the blood-cell count, both red and white; the hemoglobin percentage; the blood content of non-protein nitrogen, creatinin, and calcium; the Wassermann reaction, urinary output, and renal function. Special attention should be given to the lungs and heart. As these patients are usually poorly nourished, or even cachectic, rest in bed in a dust-free room, with free ventilation, good sunlight, and as much nourishment as may be tolerated are of essential benefit. A moderate anemia may be cleared up to a sufficient degree in this way. If not, or if the anemia is severe, a blood transfusion from a selected donor is in order. Always insist that the bloods of recipient and donor be cross-typed, and even with this extra precaution the final proof of any transfusion is obtained only when the blood is being given. For this reason, begin all transfusions cautiously.

Some patients may present carcinoma of the stomach, well advanced, with little loss of nutrition or dietary disturbance. Patients who have gastric residue should have gastric lavage begun several days prior to operation. Hemorrhage may preclude this preliminary. For 48 hours prior to operation, only liquids are given, and these are to consist of water, fruit juices, broth, consomme and gruels. In patients who have very slow emptying time, the quantity of these articles may have to be materially reduced and nutrition and body fluids supplemented by intravenous injections of dextrose solution.

Soon after admission the patient should have careful dental prophylaxis, and thereafter the mouth should be maintained scrupulously clean. Diseased tonsils should be removed and the paranasal sinuses investigated.

Preoperative orders direct an ounce of milk of magnesia the second night prior to operation and a simple enema the night before operation. The abdomen and lower chest are shaved, but further nothing else except a general bath. A small dose of some somnifacient insures a restful night's sleep. An hour before operation, a quarter-grain (16 mg.) dose of morphine is given with 1/150 grain (0.4 mg.) of atropine, hypodermically.

When gastric resection is contemplated we use Avertin anesthesia, using 90 to 100 mg. per kilo of body weight, administered half an hour before operation, as a basic anesthetic, complete surgical anesthesia being maintained by a light "carrying" of ether. When spinal anesthesia is used, we give 6 grains of Sodium Amytal two hours before operation; however, we have abandoned the use of this drug when Avertin is employed, because of respiratory depression.

The position of the stomach and extent of the lesion determine the position of incision, which is usually made to the left of the median line. The stomach is delivered and the lesion examined for its nature and extent. There may be more than one ulcer. Short of a frozen section examination, it is not always possible to differentiate definitely between ulcer and carcinoma. In the presence of carcinoma, the sheer extent of the lesion, together with the distribution of metastases into contiguous tissues and viscera, determine its operability. Ordinarily, if enough healthy fundus remains to provide for a Billroth No. II operation or a posterior gastrojejunostomy, either of these procedures is indicated. The latter will afford drainage and nutrition if the growth cannot be excised. Removal of the neoplasm, with as much of the metastatic glands as possible, offers additional lease on life with a fair promise of comfort, if not cure.

With the extent of the operation clearly defined, the blood supply along both greater and lesser curvatures is doubly ligated in segments and excised between ligatures. The main arterial arches may be preserved in ulcer, but are usually sacrificed in carcinoma. Chronic inflammatory changes, adhesions and contractions often alter or confuse normal relationships. Care is to be exercised to avoid injury to the underlying pancreas and its duct, as well as to the nearby common bile duct. Do not injure the middle colic artery.

After freeing the duodenum it is clamped, and we find the Furniss intestinal clamp very useful here. A second ordinary clamp is placed proximal to this and the duodenum between the two is severed with a cautery. The stomach end is covered with a piece of gauze and turned back on itself out of the way. The duodenal stump may appear innocent, but disastrous results may result from defective closure. After disengaging the Furniss clamp, its needle is found holding the tissues in perfect coaption. Simple through-and-through, continuous chromic sutures, on an atraumatic needle, are passed, the Furniss needle is withdrawn, and the sutures pulled home and tied. This is covered with continuous, inverting Lembert sutures, passed to include the muscle layers. Bleeding points are ligated.

Attention is now directed to the stomach. In a small organ, the Furniss clamp may be used proximal to the lesion; otherwise, the long Payr pylorus clamp is applied and the handle closed. A second clamp is closed distal to this, to insure against soiling, and the tissues between are severed with a cautery or coagulating knife. The stomach wall is quite thick and clamps must be placed securely. If the hold is inadequate, a portion of the engaged tissue will slip free, with

soiling. The proximal portion of the stomach is sutured and inverted in the same manner as was the duodenum. In the Billroth No. I method, sufficient opening is left to provide anastomosis with the duodenum or for a modified Polya operation.

In the latter operation, a splendid procedure is to bring the jejunal segment through the transverse mesocolon, attaching the serosal surfaces in the line of the proposed gastric stump, the stomach being severed as the anastomosis progresses (Meyer: *Surg. Gynec. & Obs.*, 62:611). When possible, I prefer complete, smooth closure of the stomach and the creation of a new opening by performing a posterior jejunostomy, known briefly as Billroth No. II. As these operations are rather extensive and due to proximity to important structures, some degree of violence is inflicted and large autonomic nerve ganglia are molested. Speed, consistent with accuracy, is incumbent. Unnecessary trauma and pawing the tissues are to be avoided. Likewise avoid unnecessary injury in using hemostats. Irreparable trauma is often inflicted by the inconsiderate use of retractors. No metal retractor has ever equaled the human hand. When performed with neatness and dispatch, gastric resection enjoys a surprisingly low mortality.

Items in this operation which need special attention are: complete closures with peritoneal reinforced covers; insurance against leaks; avoidance of soiling; complete hemostasis; and protection of all exposed parts with warm, moist towels. The use of a drain is a matter of individual judgment. No doubt, in some cases, the only purpose served by a drain is that of a foreign body; however, there are times when I feel that a drain is a safety valve.

Postoperative care is essentially the same as before mentioned: Intravenous injections of dextrose solution; Murphy drip of physiologic saline solution; Pitressin 2, 4 and 6 hours postoperatively; and Dilaudid for pain. Connell suction is a frequent necessity, to relieve gastric distention. Nothing is given by mouth for from 48 to 72 hours; then plain water, in teaspoonful doses every 15 minutes. If all goes well, weak tea or coffee, then gruels and clear broth, may be gradually added. Frequent changes of position, with special reference to the chest, are helpful in avoiding postoperative pneumonia and massive collapse. Hyperventilation, with carbon dioxide and oxygen, before leaving the operating table, is also helpful. Early recovery from narcosis is important, with a period permitted to elapse before postoperatives opiates are administered, to permit the cough reflex to act, thereby freeing the bronchi of collected mucus. Short deep-breathing exercises, at regular intervals, are

beneficial. The merits of postoperative x-ray therapy need not be discussed here, except to say that this should be used only by a thoroughly experienced roentgenologist equipped with a machine of adequate power.

Posterior Gastrojejunostomy

Aside from its occasional connection with gastric resection, posterior gastrojejunostomy is an operation of great and often almost magical worth for the relief of chronic duodenal or pyloric ulcer. There is no longer any point to the argument as to the relative merits of medical and surgical treatment of ulcer. In its early stages ulcer is entirely a medical problem. Later, with chronicity, intractable recurrence, gastric residue, hemorrhages, and invalidism, it comes within the province of the surgeon for a comparatively short time, to return again to medical management. During this brief period, the surgeon must acquaint himself with every detail of the history, symptoms and physical findings, and be assured that a thoroughgoing medical regimen has failed. The great trouble at this point is that medical treatment is persisted in when it is no longer adequate. Too many patients lose valuable time clinging to the forlorn hope afforded by the medical regimen, pursuing a miserable existence, living in fear of an operation. Ninety percent of those who have selected surgery have found relief. This applies to duodenal and pyloric ulcers. I feel that extra-pyloric ulcers of the stomach are a surgical task from the first.

Posterior gastroenterostomy, as it is more commonly called, is a simple operation, in proper hands, and ordinarily presents no particular surgical difficulties. The same preparations as in gastric resection are followed, as indicated. Spinal anesthesia is our method of choice for this operation, and 150 to 200 mg. of the selected anesthetic are used.

An incision to the left of the median line offers good exposure. The site of the ulcer is explored briefly; then the transverse colon and omentum are lifted up over the stomach, exposing, below, the transverse mesocolon. The left hand, covered with gauze to prevent slipping, is then passed beyond the lesser curvature. The stomach is grasped and rotated so that the posterior surface bulges against the stretched transverse mesocolon. Selecting a bloodless area, the peritoneal layers are slit and the opening carefully enlarged, exposing the posterior gastric wall. Three and a half to four inches of the latter are then drawn through the aperture, and each end is grasped by an Allis forceps and engaged in the left prong of a Roosevelt clamp. This gastric segment should be placed near the greater curvature, oblique to the long axis of the stomach and approximately midway between the fundus and pylorus.

I feel that the vertical stoma is conducive to obstruction. If placed too low, the emptying time is apt to be too rapid, and if placed high residue will collect; this is especially true if the stoma is placed high on the fundus. As a result, the ulcer will be irritated and a drag will be placed on the jejunal loop.

The location of the gastric opening having been located, the jejunal loop is brought up by locating it, to the left of the medial line, where it emerges beneath the transverse mesocolon and where the duodeno-jejunal loop is fixed by the ligament of Treitz. It is important that this portion of the bowel be definitely identified. After the surgeon is sure that he has this portion in hand, he notices that the distal portion is directed to the left or to the right. In whatever position it is found, we pick up a portion, corresponding in size to the gastric segment, with Allis forceps and, without altering its direction, place it alongside the stomach, held in the right prong of the Roosevelt clamp. The stoma will be placed in its antimesenteric border. Whether it is iso- or anti-peristaltic appears to make little if any difference. What is of importance is the disposition of either the proximal loop or distal loop in a manner to avoid sagging, kinking, or pooling. The proximal loop must go direct to the gastric stoma with neither tension, on the one hand, nor sagging on the other.

It must be remembered that, while a posterior jejunostomy is being performed, the stomach is rotated and, in a sense, is "upside-down." The position of the proximal and distal loops must be visualized in their relation to the normally reposed stomach. Following the anastomosis, it is attention well directed to inspect these new relationships and correct, where possible, misalignment, kinks or obstruction, by judiciously-placed anchoring stitches. In this connection it should be said that the seeds of postoperative distorting adhesions are often planted, during the operation, by soiling, leakage, trauma, and undue exposure. Malpositions are often conducive to stomal or jejunal ulcers.

Formation of the gastro-enterostomy is too well known to require repetition here. It is important to insure sufficient size of the anastomosis—two and a half to three inches long, according to the size of the stomach. I use three atraumatic suture levels: One for the mucosa; one muscular and hemostatic; and the third for the serosa; all continuous. Following the second suture line, release the double clamp to note the presence of bleeding.

In using the clamp, care must be taken not to injure the tissues by tight pressure, and the arms must be encased in soft-rubber tubing. Some surgeons perform this operation without the use of clamps, except the Allis

at each end, and since the advent of the quiet abdomen resulting from spinal anesthesia, this is easily done and lessens trauma.

The edge of the opening in the transverse mesocolon is attached to the stomach alongside the gastroenterostomy, to prevent herniation. After careful inspection of all work done, the wound is closed without a drain. In closing the abdominal wall, the separated rectus muscle is reunited by interrupted catgut sutures without pressure, to avoid muscle necrosis. The muscle sheath is closed with chromic catgut. Two or three tension sutures may be passed. An abdominal binder is helpful. Remove the skin sutures only after healing has taken place, and not on routine days.

Postoperative care is essentially the same as that following gastric resection. Subsequent to this, guiding the patient back to a regular diet, with slight abridgment and under ordinary dietetic regularity, is a medical task. The idea that such an operation finally disposes of the condition must not gain ground. Some patients have a diet complex, causing them to continue with an over-restricted diet, which leads to invalidism and deficiency disease. Others commit

early dietary indiscretions which, if persisted in, demoralize both the digestion and the patient, and do violence to an unhealed ulcer. These patients need tutoring to normal habits of regular diet. One of the basic things they have to relearn is that it is not what they eat, but the manner of eating, that is of importance. Chewing the food is not merely becoming a lost practise; it is already lost. Inadequate mastication does violence enough to a normal stomach and, when indulged in with a stomach handicapped with an ulcer trying to heal, it is little wonder that recoveries are disappointing and patients revert to former dietary restrictions and invalidism.

Many of these patients are neurasthenic because of their prolonged somatic disturbances and poor economic adjustments. They are overwrought with fears, complexes, and obsessions. Trouble and distress have been their portion for so long that, though released, they pursue the mental hazards of fear and discouragement. An understanding medical and nursing follow-up service will do much to establish solid ground of complete recovery.

U. S. Veterans' Facility.

When Not to Say "Never"*

By Edward H. Ochsner, B.S., M.D., F.A.C.S., Chicago
Consulting Surgeon, Augustana Hospital

TWO recent and several earlier experiences impel me to make this report, in the hope that it may prevent others from making the same, or similar, mistakes.

Some months ago I attended a surgical meeting in a distant city. A surgeon read a paper on jejunal ulcer, and one of the gentlemen who discussed it, repeatedly used the words, "never" and "always." An internationally known surgeon arose and, in the course of his discussion, said, "There are two words which are out of place in medicine—'always' and 'never'. When I hear either of these words used in a medical discussion I always—"—temporarily the speaker got no further. I do not recall ever having heard such a spontaneous and general outburst of laughter at any medical meeting which I have ever attended, not even when the speaker tried to be humorous.

Specific Cases

Case 1:—On October 12, 1935, I was called in consultation to see a former patient. Six days previously she had eaten some lobster and shrimp for dinner. During that night she awoke with severe abdominal pains, backache, chills and sweats. A very competent

physician was called the next day, but she absolutely refused to take a cathartic, because ten years previously a prominent gastroenterologist, under whose treatment she was at that time for colitis, had told her never, under any circumstances, to take castor oil or any other drastic cathartic.

When I saw her, six days after she had eaten the lobster and shrimp, her pulse was 96 and her temperature 102° F. She was still suffering from generalized severe abdominal pain, without local tenderness; considerable abdominal distension, without obstruction, however; and excruciating backache. She was a much sicker looking patient than her pulse and temperature would have indicated. Her face was drawn, flushed, subicteric, and looked a little as though she might be coming down with typhoid fever. There were no rose spots, the spleen was not palpable, and there was no demonstrable increase in splenic dullness. The urine showed a trace of albumin, a trace of blood, and many pus cells. The patient was clearly suffering from the results of ptomaine poisoning which had affected the kidneys, and a mild hemorrhagic nephritis had developed as a result.

On the seventh day of illness, after a good deal of persuasion, she finally agreed to take one ounce of castor oil. This resulted in the

*Address delivered before the North Central Illinois Medical Association, Dec. 3, 1935.

evacuation of large quantities of very foul bowel contents. The abdominal pain and distension, as well as the backache, were relieved in a few hours. The temperature began to subside within twelve hours, and was normal within 24 hours. Five days after the castor oil was administered, the urine was free from blood, and the next day it was free from albumin and pus. The patient left the hospital ten days after admission, practically recovered.

Case 2:—In May, 1900, I received an urgent telephonic message from a doctor in a small town in northern Indiana, requesting me to come immediately, prepared to operate on a strangulated hernia, and to bring along a nurse who was competent to assist at the operation, and who would remain to give the necessary care to the patient after the operation. The doctor met us at the railway station with a surrey and took us five miles into the country. The patient, a woman about 65 years of age, lived in a one-room log house with a lean-to summer kitchen, and a neighbor woman was looking after her.

The history revealed that the patient had had an umbilical hernia for almost 25 years, and that, 20 years before I saw her, she had consulted a then-prominent surgeon, the professor and head of the department of surgery in a large and important medical school, in reference to possible relief for her hernia by operation. After examining her, the surgeon had told her, most emphatically, never, under any circumstances, to permit anyone to operate on the hernia, because such an operation would unquestionably prove fatal. The patient had never forgotten this injunction, and had adhered to it rigidly, in spite of the fact that, ten days previous to my seeing her, the hernia had become strangulated; and also in spite of the fact that her attending physician had urged her every day, on his daily visits, to submit to an operation. Not until the morning when I was called had she consented.

On examination, I found a very sick, sapremic patient, with an umbilical hernia fully the size of her head, and the skin which covered the hernia was already gangrenous in spots.

The patient was given a few whiffs of chloroform, the hernial covering completely excised, a large amount of putrid material evacuated, the proximal end of the ruptured transverse colon sutured into the abdominal wound, an aseptic web dressing applied, and the patient put back to bed. She survived for six days and then succumbed to her sapremic condition. The nurse whom I left on the case was a well-trained, most efficient, middle-aged woman. On her return to the city she told me that the stench had been almost unbearable, in spite of the fact that,

day and night during the whole time she was in attendance, she had kept the two opposite doors and the two windows wide open. The nurse, herself, gave further unmistakable evidence of what she had gone through. Her whole face, particularly about the lips, was covered with blisters. She told me she could not have endured it another 24 hours.

Case 3:—On June 2, 1902, I reported to the Chicago Medical Society my first successful case of double congenital dislocated hips operated upon by the Lorenz bloodless, weight-bearing method. During my presentation of the case I stated that, after the reposition had been accomplished, I had placed the lower limbs in a plaster of Paris cast at 90 degrees ventral flexion and 90 degrees abduction. Three of the most prominent orthopedic surgeons of Chicago, of that time, discussed the case.

The first one said, approximately: "Doctor Ochsner, not being an orthopedic surgeon, cannot be expected to use orthopedic terms correctly. In the first place, he could not have gotten the limbs in the position he states, and even if he had, the patient could never have endured remaining in that position for a period of six months." The other two gentlemen who discussed the case said substantially the same thing, in slightly different phraseology. I then passed around a photograph of the little girl, which showed her in exactly the position I had described. It was both interesting and amusing to see the smiles on the faces of the physicians as the picture was viewed by each one in turn. The three older gentlemen never quite forgave me. It taught me a most valuable lesson. I do not think I have ever, since then, said that a certain thing cannot be done. This experience also illustrated the correctness of a statement a colleague of my younger days once made in my hearing. He said, "If you can get three professors to say a thing can't be done, go home and do it."

Case 4:—In 1903, a physician 55 years of age placed himself under my care for bladder stone. The diagnosis was clear and unmistakable. He had suffered a good deal of pain, due to the fact that, on several occasions, the bladder had contracted violently in an effort to expel the foreign body. I suggested a perineal incision for the removal of the stone. Like so many medical men, he wanted to know just what I proposed to do, and all the details about the operation. I told him I would have to fill the bladder with physiologic saline solution and then pass a grooved urethral sound, cut down upon this, then dilate the prostatic urethra and extract the stone. The patient then told me that, several years previously, he had been treated for a gonorrheal stricture by a physician, who later became one of the world's most noted

surgeons of his day and generation; that when this surgeon had passed a sound on him he came so near dying from urethral shock that the surgeon had told him never again to permit anyone to pass a hard metallic instrument into his urethra. I explained to the physician patient that passing a sound on some one who is awake and on some one who is under deep general ether anesthesia were two entirely different things. After a few days he consented to the operation.

The morning the operation was scheduled he was sitting up in bed. When he heard the old-type, rattly hospital cart coming down the hall, he gave one sigh and dropped back on his bed, dead. His reason had been convinced, but a latent, uncontrollable fear had asserted itself and killed him.

Case 5:—In 1908, a robust, well-nourished woman of about 60 years came to my private office with the request that I remove a sub-sternal lobe of her thyroid gland which had, on several occasions, caused severe choking spells. The operation was clearly indicated, and was performed a few days later. The lobe was about the size of a lemon, freely movable, and was probably the easiest sub-sternal thyroid operation I have ever done.

On the day she was ready to leave the hospital, she told me that, approximately 25 years previously, she had consulted Professor X . . . , who was unquestionably the most prominent surgeon of his time in the Mississippi Valley. He had told her, most emphatically, never to permit anyone to touch her goiter with the view of removing it. She further told me that she had deliberately refrained from telling me this part of her previous history at her first interview, for fear that I might be so impressed by the opinion of the world-renowned surgeon that I would

not be willing to undertake the operation, but that she had gone through such terrible suffering during the last several strangulation attacks, that she had fully made up her mind that she would rather die on the operating table than go through another attack.

Comments

In the case of ptomaine poisoning, the little word "never" unquestionably prolonged the illness and unduly endangered the kidneys of the patient. If she had not disregarded the advice of the gastro-enterologist when she did, the kidneys might have been permanently damaged.

In the cases of the umbilical hernia and the bladder stone, the little word "never" probably was the cause of the untimely death of both of these patients. The hernia case would have been an excellent surgical risk, if the operation had been performed within twenty-four hours after the strangulation had occurred, and in addition, the patient would have escaped two weeks of the most terrible kind of torture. The bladder stone case would also have been an excellent surgical risk, if it had not been for the psychic element which the word "never" introduced into the picture.

The goiter case would probably shortly have succumbed to suffocation, if she had not finally disregarded the advice of the noted surgeon, for she told me that each attack of strangulation had become more severe and that the last attack had nearly ended fatally.

Because of such facts as these, I would urge all medical men, particularly those who are prominent and those who are very positive and definite in their instructions to their patients, that they be very careful in the use of the little word "never."

2155 Cleveland Avenue.

FATTENING THE MISSIONARY

The sooner Congress realizes what is now perfectly evident to accountants and economists; namely, that there are simply not enough incomes in the higher brackets to pay for government as it is now being conducted, the better it will be. When that day comes, the average man with a small income, in the urban and industrial sections of the country, will wish he had been more vigilantly on his guard against mounting costs of government, for he is the one who is going to pay. He is the missionary who is being carefully fattened to provide the ultimate feast in the cannibalistic reckoning that is ahead of us. I wonder if the missionary realizes his future as he hears the tom-toms in this presidential year.—RAYMOND MOLEY, in *The Watch Dog*, June, 1936.

Logic and Emotions

Facts and logic do not mix well with strong emotions. Faced with imminent physical danger, one may save oneself by swift emotional reactions which arouse the greatest muscular capacity. But when a difficult economic problem must be solved, emotional reactions are apt to have bull-in-the-china-shop results.—AMERICAN INSTITUTE FOR ECONOMIC RESEARCH.

Notes from the A. M. A. Meeting

Reported by George B. Lake, M.D., Waukegan, Ill.

THE fine new municipal auditorium in Kansas City, Mo., was completed (or almost completed) just in time for the eighty-seventh annual session of the American Medical Association, which was held there in May, and is well suited for such gatherings, though the extensive exhibits at this meeting taxed its capacity in this particular. The weather was ideal.

Among the unusual incidents of this meeting were the facts that the incoming president, Dr. J. Tate Mason, of Seattle, was installed in his absence, due to his critical illness with thrombosis which had necessitated the removal of a leg (he has since died); that a forthcoming candidate for the Presidency of the United States, Governor Alfred M. Landon, of Kansas, addressed the opening general meeting on May 12 (the only meeting open to the public); that Lord Horder, personal physician to King Edward VIII, of England, was among the guest speakers; that the meeting was dramatized for the public by a thirty-minute radio broadcast over WDAF and the NBC network; and that the oldest graduate physician now in active practice (Dr. H. D. Wood, of Fayetteville, Ark.—89 years old) was in attendance, stating that it was the last meeting he expected to attend as a practitioner. Not that Dr. Wood expects to die before next year, but that he is retiring from practice to engage in the manufacture of orthopedic chairs. There was also a rumor that the alert police of the city picked up seven notorious pickpockets who were planning to ply their nefarious trade upon the unsuspecting medicos.

During the week 6,749 physicians registered (the guests and non-medical attendants numbered several thousand more, so that the hotels were crowded), many of them from the central and far West, who do not ordinarily attend meetings in the East. Six hundred and sixty (660) individuals took part in the section meetings, as essayists or discussants; 440 participated in the scientific exhibit (some of these were also speakers); and 216 firms were represented in the commercial exhibit, which required somewhere around 2,000 people to run it. It was, truly, a big show!

Business Sessions

All business of the Association is, of course, transacted by the House of Delegates—the 175 men who *officially* represent the medical profession of the United States. It behooves the physicians of this nation to select their delegates for this important work with the greatest care.

Dr. John H. J. Upham, president of the board of trustees of the Association and dean of the Ohio State University College of Medicine, Columbus, O., was chosen as president-elect, and Dr. Charles G. Heyd, professor of surgery at Columbia University, New York City, as vice-president (he assumed the presidency on the passing of Dr. Mason). The 1937 meeting will be held at Atlantic City, N. J., which received one more vote than Philadelphia as the meeting place.

The official attitude of the Association is still strongly opposed to State Medicine or any other form of regimentation of the medical profession, and in rather lukewarm opposition to the Copeland "Pure Food Bill," which died with the adjournment of the "Twenty-Billion-Dollar Congress," but will be resurrected in the next one if the medical men of the country do not keep vigilant watch.

The reports of the various standing committees were about what anyone who has followed their records in the past would expect. Nothing developed which was dramatic or of special importance.

The report of the Committee to Study Contraceptive Practices was rendered (see J.A.M.A., May 30, 1936, p. 1910), and suggests that the members had some personal bias in the matter or were not fully informed of existing conditions.

In view of what seems to be a well-established fact, that the birthrate is decidedly higher among families on "relief" than it is in the general population, the statement that the Committee "found no evidence available to justify the broad claim that dissemination of contraceptive information will improve the economic status of the lower income groups," appears a bit disingenuous, especially in connection with their recognition of the fact that it is the people of the higher income groups, who need it least, who are best informed along these lines.

One feels rather disappointed that this report was not more detailed and constructive, and can only hope that the recommendation that, "Steps should be taken by some responsible group to develop standards for judging contraceptive materials," will be carried out with sincerity and without prejudice.

Meantime, while the members of the medical profession are slowly becoming acquainted with the connotations and technics of contraception, the only place where many people who need it can procure sound and reliable advice along these lines is in the

clinics, conducted under proper auspices, which the Committee deplors. When all physicians (or nearly all) are prepared to accept this responsibility and discharge it intelligently and with open minds, the clinics will be less important and will take their place along with other similar agencies for giving medical advice and treatment to large numbers of people in the lower economic brackets.

Scientific Exhibit

The scientific exhibit was, as usual, excellent, but, because of the limits of the size

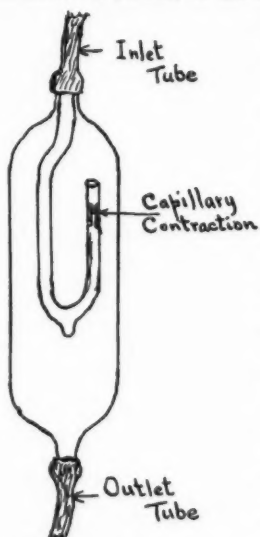


Fig. 1.—The Bower Dripper.

and arrangement of the space available for it, was crowded and not so impressive as it was at Atlantic City last year. The gold medal in Class I (original investigation) went to Drs. Huggins, Noonan, and Blocksom, of the University of Chicago, for their discoveries regarding the distribution of red and yellow marrow and the reticulo-endothelial system

in the bones. They showed that yellow marrow changes to the red form by the application of heat, and that the heat gradient of the body determines the marrow distribution in the extremities.

These findings are of basic and far-reaching importance, as the red marrow is a blood-forming organ and may be a source of antibodies. They may explain the curative nature of fever, and suggest that a mild therapeutic hyperthermia, applied continuously for a week or more, might be more helpful than a much higher temperature maintained for only a few hours two or three times a week.

The silver medal went to Drs. Suplee and Ansbacher, of the Borden Co., New York, for the discovery and isolation of a definite, fluorescent chemical substance—*Lactoflavin* ($C_{17}H_{15}N_5O_6$)—which is an entity of the water-soluble vitamin B complex. This substance has been synthesized, but the process is complex and more costly than its isolation from milk or whey.

The bronze medal was given to Dr. Alvin L. Barach, of the Presbyterian Hospital, New York, for original investigations of the rôle of helium and oxygen in various types of dyspnea.



Fig. 2.—A comfortable plaster splint for immobilizing the elbow and forearm during continuous intravenous infusions. The arm, in the splint, is supported on a pillow, and may or may not be strapped in place with adhesive plaster, as shown. The entire inflow tube should be kept above the hub of the needle, and may well be fastened to the splint with adhesive plaster.

In Class II (excellence of presentation of known facts) the gold medal was awarded to Drs. Schindler, Ortmyer, and Renshaw, of the University of Chicago, for an exhibit of chronic gastritis, as studied by gastroscopy, using Dr. Schindler's flexible, rubber-covered gastroscope with multiple hand-ground lenses on the inside, which gives an exceptionally wide and accurate view of the interior of the stomach; and the bronze medal to Dr. Hamilton Montgomery, of the Mayo Clinic, for an exhibit of the histopathology of cutaneous tuberculosis.

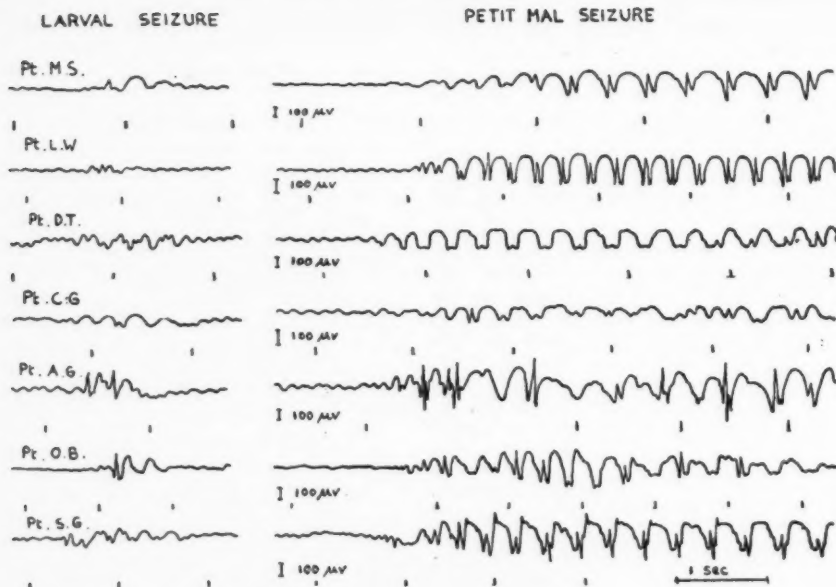
The silver medal was given to Drs. John O. Bower, J. C. Burns, and H. A. Mengle, of Temple University School of Medicine, Philadelphia, for an extensive and highly instructive exhibit showing the treatment of spreading peritonitis complicating acute appendicitis.

Two especially practical features of this exhibit were the showing of the new Bower dripper, for regulating intravenous infusions (see Fig. 1), and a comfortable and effective type of splint for immobilizing the forearm and elbow during such treatments (Fig. 2).

The special feature of this dripper is the fact that it has a capillary contraction in the inflow tube, which regulates the number of drops per minute automatically, and obviates the necessity for a stop-cock on the tube to the container.

Drs. Frederic A. Gibbs, William G. Lennox, and their associates, of Harvard Medical School, Boston, received a certificate of merit in Class I for their exhibit of the electroencephalograph and its application to the study of epilepsy, so as to rule out hysteria and malingering. The accompanying electroencephalogram (Fig. 3) is explained in the legend accompanying it.

The Army Medical Museum, Washington, D.C., presented beautiful examples of color photography (medical and general subjects), showing the amazing results which can be



Courtesy, Arch. Neurol. and Psychiat.

Fig. 3.—Alterations of the electroencephalogram in petit mal epilepsy. Strips were taken from records of different patients. A characteristic wave and spike are obvious in all cases. "Larval seizures" is the term applied to a smaller and shorter electrical disturbance, similar in form to that occurring at the time of a seizure but not associated with loss of consciousness. The height of *I* below each record indicates the deflection of the ink-writing oscillograph produced by a 100-microvolt signal. The vertex becoming electrically negative to the ear gives an upward deflection in all records. The vertical lines below the strips give the time in seconds. The short records at the left were made when the same patients were experiencing larval seizures. No attempt of a patient to simulate a seizure has ever produced electrical fluctuations like those shown.

obtained by modern methods in this field.

Drs. Max Cutler and Otto Saphir, of Michael Reese Hospital, Chicago, showed how cancer cells may be transferred to normal tissues by fingers or instruments touching malignant tumors during a biopsy or operation. The knives used in such work must be changed *immediately* after every contact with malignant structures.

Dr. H. Winnett Orr, of Lincoln, Neb., had a highly interesting and practical exhibit and motion picture illustrating the treatment of fractures. He showed that the ideal method is to secure the fragments in position (after they have been properly reduced on a fracture table) by means of fixation pins, and then at once incorporate these pins in a plaster cast. He further showed that the Thomas splint, or some modification of it, is a much more efficient device than any form of elastic traction, such as the Buck method, employing either adhesive plaster or "ice tongs."

Dr. Samuel McLanahan, of Baltimore, Md., showed a startling collection of photographs, roentgenograms, case histories and newspaper clippings, illustrating serious injuries caused by the projecting type of automobile door handles—particularly the "modernistic"

forms, with sharp-pointed tips. He also exhibited models of proposed new types of handles, which close flush with the body of the car, when not in actual use, and are released, when needed, by a push-button.

A book would be required to describe all the valuable features of this scientific exhibit.

Commercial Exhibit

As usual, one was overwhelmed with the extent and variety of the commercial exhibit and the difficulty, among so many things shown, of picking out those that are strictly new and possess general interest and permanent significance. I will mention, briefly, just a few that struck me as being of especial novelty or importance, with my apologies to those which may have been equally important, but which I overlooked or about which there might be a difference of opinion.

One strictly new apparatus (a couple of them were finished just in time for the meeting and brought down from Chicago by air) was the Cameron "Heartometer," which is intended to serve the combined purposes of a sphygmotonomograph and a plethysmograph. One can not yet be quite sure just what it will do, but it looks promising.

The Sklar Manufacturing Co., of Brooklyn, was showing Dr. Holder's new clamp for

placing fascial sutures in reconstructive surgery, such as herniorrhaphies by the McArthur method, etc. It traumatizes the tissues much less than the Galli or Shearon's needle, which have formerly been used for this purpose.

At the Abbott Laboratories' booth there was an instructive exhibit of models of pollen grains, accurately enlarged to 8 billion times natural size. This was a feature calling attention to their painless and practically reactionless pollen antigens. Their botanist, Mr. Durham, whose book, "Your Hay Fever," was reviewed in this Journal recently, is an outstanding authority on pollens.

In the Eastman Kodak booth they were showing striking moving pictures of surgical operations, reproduced in full colors by modern methods of color photography.

The National Drug Co., of Philadelphia, was offering 20,000 units of diphtheria antitoxin, so highly purified that the dose is only 4.5 cc. of water-clear fluid, in a syringe-ampule, ready for injection.

Havelock Ellis' monumental "Studies in the Psychology of Sex," formerly published in six volumes at \$30 the set, has now been reissued, in four beautifully made volumes, by Random House, at half the former price. The Chicago Medical Book Co. was showing this set, which every practicing physician should possess and study.

Here follow abstracts of a few of the papers read in the various sections; but before entering upon them I want to say a word about a feature which came in for much newspaper publicity, because it was so unexpected at a meeting like this.

In the section on Obstetrics and Gynecology, after several excellent papers on analgesia in obstetrics had been read, Dr. Gertrude Nielsen, of Oklahoma, read a paper in which she harked back to the "Curse of Eve," and declared that women in labor should be permitted to suffer it out, in order that they might gain the full "spiritual" benefits of childbirth. Two or three noted obstetricians, who have retired from practice or are about to do so, backed her up, one of them in a highly emotional oration. The younger and more up-to-date men were very gentlemanly about it and refused to be drawn into a fruitless discussion. More will be said about this in our editorial pages.

THE CLINICAL USE OF HYPNOTICS

By Soma Weiss, M.D., F.A.C.P., Boston, Mass.

Hypnotics are among the drugs most widely used by the laity on self-prescription, and such use may be definitely dangerous; but the clinical value of these remedies, when properly applied, far outweighs the occasional dangers.

Before prescribing a hypnotic, one must know its indications and the character of the

action of the various drugs of this class. One must also know the patient's sleep habits—the depth, duration and character of his sleep. If he has difficulty in going to sleep, it is well to give a short-acting barbiturate, such as Evipal. If he wakes later in the night, a long-acting drug like Luminal (phenobarbital) is better. If pain is present, an analgesic should be given with the hypnotic (acetanalid has fallen into undeserved disuse for this purpose); if there is motor restlessness, give bromides. A full dose of a hypnotic should never be given until the previous dose has been entirely eliminated.

Classification

- 1.—Inorganic salts, such as bromides, magnesium salts, etc.
- 2.—Alcohols and chloral.
- 3.—Drugs of the urea group.
- 4.—Barbiturates.
- 5.—Alkaloids, such as morphine, Dilaudid, and codeine.

The barbiturates are now the largest and most widely used group of hypnotics. They vary widely in dosage and toxicity, the long-acting and the short-acting types being, in general, about equal in toxic power. Evipal acts quickly and produces a short sleep; phenobarbital acts slowly and gives a long sleep. All of them will prevent and often relieve reactions from local anesthetics of the cocaine group.

All barbiturates should be given by mouth if practicable; if not, give them by rectum, dissolved in starch water. In acute mania, convulsions and similar conditions, the *soluble* barbiturates should be given intravenously and *slowly*.

Any stimulant to the central nervous system (strychnine, caffeine, ephedrine, etc.) can counteract the effects of sedatives, but one should adjust the dose to the drug used and to the circumstances, so as to avoid overdosing, giving now more and now less, as indicated. The short-acting drugs, such as chloral, Bromural, and Evipal, should be given half an hour before the effect is desired; long-acting drugs, such as Sulphonal and Luminal, two hours before. If a hypnotic has to be used for several weeks, it is best to change the drug every week or ten days.

Sensitive patients, when taking hypnotics, should be closely watched for the appearance of anemia, gastric ulcer, liver or kidney disease, etc., and the elimination of the drug should be checked from time to time. Drugs which are quite safe in relatively normal people may be dangerous in the presence of disease. The harm, if any, is to the peripheral circulation, not to the heart.

The barbiturates do not produce habituation like morphine, but their prolonged use

may lead to a desire for them and their continued use, especially when they are taken to relieve disturbing emotional states.

Dilaudid is as toxic, *relatively to the dose*, as is morphine, but there is *less* danger of habit formation.

Chloral and paraldehyde affect the blood; chronic barbiturate poisoning, where large doses are taken, may cause paralysis by affecting the central nervous system.

Do not leave bottles containing hypnotics exposed or readily available, as patients may take an overdose, by mistake or intentionally. Single or repeated therapeutic doses have not caused death, except in the presence of complications.

In *poisoning* by hypnotics, remove the drug from the stomach by gastric lavage, using *hot* solutions; keep the patient's head low to prevent aspiration pneumonia; give stimulants to the central nervous system—strychnine, caffeine, ephedrine—preferably by par-enteral injection.

Every physician should learn the characteristics of a few hypnotic drugs *thoroughly*, so that he will know their clinical as well as biologic effects, and then use them with intelligence and discretion.

FEVER THERAPY

By Stafford L. Warren, M.D., Rochester, N. Y.

Among the available methods for producing "artificial fever" for pyretotherapy, in addition to inoculation with malaria, are: non-specific therapy, as by the intravenous injection of typhoid vaccine or the intramuscular injection of sulphur in oil; hot baths; diathermy, short-wave or "radio" currents (inductothermy); and carefully controlled hot-air cabinets.

The types of disease most likely to be relieved by fever therapy are, in general, those which are definitely due to infection, but in which high temperature is not a part of the picture of the disease, such as gonorrheal infections and paresis.

The *contraindications* to this type of treatment are: myocardial insufficiency; peripheral vascular disease; recent acute disease of the lungs; heart block; abdominal distention; disorders of the swallowing mechanism; anemia; and certain other conditions of minor importance.

Among the untoward effects which may follow such treatments, unless they are given with great care and expertness, to carefully selected patients, are: jaundice; heat burns; peripheral thrombosis; herpes; and sudden death.

In practically all cases a hypnotic should be administered before the treatment is begun. No such drug has yet been found which is ideal for this purpose, but paraldehyde and whisky are probably the safest. Whatever

drug is used must be given in rather large doses to be effective, and there is danger of side-reactions on the cardio-respiratory system.

When high temperature is maintained for several hours, in the course of disease or artificially, the chloride balance of the blood is disturbed. This must be carefully watched and deficiencies corrected.

DYNAMIC TESTS IN THYROTOXICOSIS

By Willard Bartlett, Jr., M.D., St. Louis, Mo.

In addition to the usual clinical and laboratory tests in cases of toxic goiter, it has seemed worth while to study the patient's response to various types of exercise, and a considerable number of patients with goiter, both simple and toxic, have been so tested.

The decrease in the ability of thyrotoxic patients to hold the breath, both after inspiration and expiration, has been verified, as well as the characteristic relationship between these two phases in acute, untreated thyrotoxicosis.* Both of these conditions approach the normal as clinical recovery proceeds, thus furnishing a valuable objective criterion of operability.

The condition and behavior of the pulse and pulse pressure, before and after mild exercise such as hopping, have been studied in a number of cases of goiter with normal metabolism and with hypothyroidism, and in cases of neurosis simulating thyrotoxicosis, in an effort to separate these conditions objectively, and it is believed that such differentiation can be made on this basis.

PARALDEHYDE IN LABOR

By Drs. Howard F. Kane and G. B. Roth, Washington, D.C.

When paraldehyde is given by rectum, to produce analgesia and amnesia in obstetrics, its toxicity is very low. In more than 600 cases, no disturbing symptoms, in mother or child, have been seen. It does not prolong labor, and the mother sleeps quietly for from 6 to 12 hours after delivery.

In order to obviate the use of a bulky solution and encourage rapid absorption, the drug is given undiluted, with the addition of a small quantity of benzyl alcohol which, by its local anesthetic effect, minimizes any tendency to expel the medicament. There has been no evidence of proctitis or other local disturbance.

When given in proper doses, this drug produces complete amnesia in 95 percent of the cases, without giving rise to any notable restlessness (often there is none) or causing excitement calling for restraint.

No obstetric patient who is unconscious

*See CLIN. MED. AND SURG., Mar., 1932, page 220, for discussion and details of this breath-holding test by Dr. Willard H. Bartlett, who gave this talk.—Ed.

from the use of drugs should ever be left alone. She should be in a hospital, under constant observation, or the attending physician should stay with her until labor is completed.

Fear, fatigue, and pain cause shock and are destructive. Analgesics and amnesics in labor are not a fad (as some would have us believe) and are not used chiefly for humanitarian reasons; they are good, sound medical treatment, for the conservation of the patient's strength and general wellbeing.

SKIN GRAFTING AFTER SEVERE BURNS

*By Earl C. Padgett, M.D., F.A.C.S.,
Kansas City, Mo.*

In repairing the skin losses which follow extensive burns, fundamental surgical principles are far more important, in both the early and late stages, than is the use of some particular drug or fancy type of skin grafting.

There are two general types of grafts; the thin or Thiersch graft and the full-thickness skin graft. Autogenous grafts should be used if it is at all possible to do so, because, except in identical twins, homogeneous human grafts can not be depended upon to remain in place permanently.

An important factor in these cases is the decision as to whether a good functional or a good cosmetic result is the more important. Sometimes one of these has to be more or less sacrificed to obtain the other.

Where the location of the lesion, the nature of the part, the condition of the part, and the condition of the patient permit, full-thickness or pedicled grafts seem to give better functional, and sometimes better cosmetic results than the thin grafts.

*Discussion by Gordon B. New, M.D.,
Rochester, Minn.*

The danger in severe burns is from the severe dehydration of the patient, rather than from any specific toxins which may be formed. Therefore the important life-saving points in treatment include the replacement of fluids and chlorides by means of intravenous infusions of physiologic salt and dextrose solutions. The denuded surface should be covered with appropriate skin grafts as soon as possible after the injury occurs.

*Discussion by James B. Brown, M.D.,
St. Louis, Mo.*

In covering denuded areas, the thicker the skin graft is, the better for the patient, but the worse for the donor. Thiersch grafts are insufficient and unsatisfactory, unless they are cut so thick that they become, in effect, split-skin grafts.

Sponge-pressure dressings, using carefully sterilized marine sponges, are a great help in all kinds of skin grafting.

TREATMENT OF PLANTAR WARTS

*By Vilray P. Blair, M.D., F.A.C.S.,
St. Louis, Mo.*

No one can be efficient and happy with uncomfortable feet, and foot lesions may vary from a minor annoyance to a calamity, according to the circumstances. In general, any abnormal condition affecting the weight-bearing parts of the feet causes the most trouble, and when faulty posture results from such foot deformities (as is frequently the case) it is not relieved by merely removing the cause. The patient must again be taught how to stand and walk correctly. If this is not done, the faulty posture itself may cause the continuance or recrudescence of the foot trouble.

Disorders of the bearing surfaces of the feet may arise spontaneously or develop as a result of deformities or malpositions of the bony structures. Loss of skin or of the padding of the foot, the pressure of a wart or callus, or scars resulting from the removal of these lesions are among the more persistent causes of foot discomfort.

Plantar warts can usually, but not always, be easily cured by irradiation, and this is, tentatively, the method of choice. Most of the wart should be removed, down to its base, and then a safe dose of x-rays or radium should be employed. This must be carefully handled, as some patients are hypersensitive to these powerful rays and an overdose may cause dermatitis, which will heal after a time, but is very annoying. Moreover, scars sometimes result which are worse than the warts.

Scars may be removed from the bearing surfaces of the feet by surgery, if there is a sufficient fat pad underneath. If not, and if the area is small, it is well to attempt the filling of the defect with a pedicle flap of skin and fat. Sometimes troublesome calluses result from these operations if there is not enough fat.

It is possible, and sometimes advisable, to remove plantar warts with various types of electric currents, or with a platinum-wire cautery. But whatever the method of removal, the feet must be taken care of afterward, if satisfactory results are to be obtained.

*Discussion by Ellis Fischel, M.D.,
St. Louis, Mo.*

In order to determine whether pain in the sole of the foot is due to a wart or a callus, press on the wart with a stiff probe. If the resulting pain is severe it is due to the wart. If pressure on a larger surface causes pain, it may be due to callus or to periostitis resulting from the traumatism of walking.

In treating these lesions with radium, prepare a lead shield for the foot, with a hole

just the size of the wart, and apply 50 mg. of radium element, filtered through a 1-mm. brass or silver capsule and 1 mm. of rubber, for 2 hours (100 milligram-hours of irradiation). This is safe, is often helpful, and one treatment is enough in many cases.

The pain ceases in a few days, but the wart takes longer to disappear. If the wart is not gone after four weeks, another similar irradiation may be given.

*Discussion by Joseph J. Eller, M.D.,
New York City*

Plantar warts are no joke for the patient and deserve careful treatment.

A safe dose of gamma radiation (radium), which will cure from 60 to 70 percent of these cases, is from 80 to 100 milligram-hours per square centimeter of surface.

One may, instead, apply 2,500 to 2,800 r. units of x-rays, unfiltered (the wart itself acts as a filter). If an overdose of x-rays produces a keloid this must be removed by safe irradiation—not by surgery.

Electrocoagulation of these warts sometimes produces an ulcer which will not heal for from 4 to 6 weeks.

ELECTROPYREXIA IN CHOREA

*By Drs. C. A. Neymann and S. L. Osborne,
Chicago*

Treatments with electropyrexia, produced by electromagnetic induction, have been used in 25 cases—9 severe; 6 moderately severe; and 10 mild—of Sydenham's chorea. The average number of treatments given was four, in an average period of 16 days. Temperatures between 103.5° and 105° F. were maintained for 8 hours at each seance. All these patients were relieved of their choreic symptoms after treatment.

These patients have been under observation for from 6 to 24 months (10 for a year or more), and so far only one has had a return of the characteristic movements.

Five of the patients had cardiac disorders, which proved not to be contraindications to this form of pyretotherapy.

THE PROBLEM OF STERILITY Endocrine Factors

*By Richard Chute, M.D., F.A.C.S.,
Boston, Mass.*

Of the endocrine factors in human sterility, the anterior pituitary is most important. It is the master gland. Early insufficiency of this secretion in adolescence causes disorders of the gonads.

After the pituitary, the thyroid and ovaries are the commonest offenders. The pituitary stimulates both functions of the gonads—folliculin and progestin (Prolan A and B) in the ovaries; not so clear in regard to the testes.

The injection of gonad hormone does not help matters in these cases, but sometimes does harm, especially if given in large doses. The stimulus must come from the anterior pituitary.

There are primary and secondary (pituitary) types of hypogonadism, and we must distinguish between them, by clinical and laboratory methods, if intelligent treatment is to be applied.

Men whose testicles are undescended after puberty are sterile. The action of A.P.L. (anterior-pituitary-like) hormone in causing their descent in childhood is erratic and unreliable. If it produces no good result, the testes should be brought down into the scrotum by surgical means.

A.P.L. hormone stimulates the interstitial cells of the gonads and uterus; but there is no use in giving it if there is already sufficient of this hormone in the blood. The gonads are at fault. The simultaneous administration of Prolan A and B, with the addition of thyroid, is the most promising treatment so far. However, miscellaneous gland therapy is useless and the treatment of endocrine sterility will be reliable only when we know just which glands are at fault. Even then our efforts in this direction with adults are largely of no effect. We must look after the adolescents with hypoplastic gonads.

Gynecologic Factors

*By Samuel R. Meaker, M.D., F.A.C.S.,
Boston, Mass.*

The old idea that the woman is always responsible for a sterile mating is exploded. There are at least four or five factors in sterility. Absolute sterility is present in only 30 percent of the cases, and in 90 percent the responsibility is divided between the two partners.

The factors in sterility are partly genital and partly constitutional, and these are equally important. General debility, faulty diet, chronic intoxications, and lack of exercise may lead to weak and faulty spermatogenesis.

Sterility may be relative as well as absolute, and if both partners are relatively infertile, the result may be complete sterility. In every case, the man and the woman must both be studied in full detail, and all factors corrected. The urologist must clear up mechanical obstacles to male fertility (which are rather rare); the gynecologist must do the same for the woman; the endocrinologist and the internist must correct conditions of glandular and constitutional depression; and the pathologist must study the semen.

The practice of prophylactic gynecology, by foreseeing all menacing factors in adolescents, must be encouraged.

Sperm Analysis

By Robert S. Hotchkiss, M.D., New York City

The husband is to blame in 25 percent of the cases of sterility. We must study, not only the absolute sterility of a single individual, but also the *relative* fertility of the pair. We must study the semen and determine the condition of the spermatozoa.

For this purpose the semen must be collected, after a three-day abstinence, in a sterile glass container, kept at room temperature, and examined within thirty hours. We must consider the *quantity* (the normal is from 3 to 4 cc.); look for changes in the pH (which may cause trouble); and count the number of spermatozoa with a blood-counting

chamber (the normal is 100,000,000 per cc.; below 60,000,000 the semen is infertile).

We must know the *normal morphology* of sperm cells, the same as we do of blood cells. If there are many abnormal cells, or if their motility is feeble, impregnation is unlikely. In such a case, if a child is eagerly desired, resort may be had to artificial impregnation with the semen of a certified professional donor, the same as we procure blood for transfusion.

Complete blockage of the epididymis for years does not destroy spermatogenesis. In such cases a vaso-epididymo anastomosis may restore fertility. If mechanical blockage is present in some other part of the genital tract, a plastic operation may restore its patency.

Antiseptic Delivery in the Home*

By Frank L. Wood, M.D., Lynden, Wash.

A CAREFUL study of all available reports and statistics leads to the unavoidable conclusion that our high maternal death rate is a direct result of the present furore for hospitalization of maternity cases and its attendant unnecessary operative interference in one class of cases, and rank neglect in another. It is not my intention, at this time, to go into the details of these reports and statistics, but to invite all conscientious physicians to examine them carefully. It is, rather, my wish, in this paper, to discuss the antiseptic versus the aseptic management of obstetric cases and point out how safely mothers can be delivered, in cottage or mansion, in hospital or hovel, if a safe, conservative policy is followed and careful attention is paid to the lavish use of antiseptics at every stage of the birth process.

Much has been said and is being said concerning the necessity for a sanitary environment and rigid asepsis in the management of childbirth, when it should be manifest to anyone that there can be no such thing as asepsis in these cases. It should be obvious that the anal area cannot be rendered or kept sterile, and it should be just as obvious that the vaginal tracts of married women practically always harbor many pathogenic organisms, and that there is no known method by which this area can be rendered sterile. To rely too strongly upon instillations of Mercurchrome or other antiseptics for protection is ridiculous, although they may be beneficial.

There is no more useful, safe, and effective antiseptic for use in obstetric work than

compound cresol solution. There are several reasons for this: It is a powerful antiseptic; it is harmless to the tissues in rather strong concentrations; it is soapy; and it is cheap, so that it may be used lavishly. Many fail to realize that it is more efficacious to dissolve and remove infective material than it is to attempt to destroy it in situ by antiseptics. Compound cresol solution accomplishes both purposes and can be employed, in concentrations strong enough to be decidedly unpleasant to the skin of the patient, without ill effects, although such concentrations are not often necessary nor to be recommended.

The following hospital experience will illustrate how harmless this antiseptic is to human tissues:

In cleansing an injury of the dorsum of a foot, in which the skin and other tissues were lacerated, the extensor tendons cut and torn, and the wound badly contaminated by road soil, the Sister in attendance was asked to pour a solution of Lysol into the wound, preparatory to sponging it. To my consternation, she used full-strength compound cresol solution. Before she could provide sterile water to wash it away, it had penetrated to all of the tissues involved, including the tendons and their sheaths. In spite of this, a perfect result was obtained, the sutured tendons uniting without adhesions and with complete restoration of the normal functions of the foot.

It has been my practice, in the management of maternity cases, to employ solutions in the strength of two or three drams to each quart of water (8 to 12 cc. per liter), and, in the home, this water is not always boiled or sterile. In addition to this, in order to ward off the danger that my gloves may have be-

*Excerpts from the author's forthcoming book, "The Woman Pays."

come contaminated by contact with infective material, each time I examine the patient or perform any other internal manipulation, I first wash my gloved hands in concentrated cresol solution and rinse them in a weaker solution. By following this plan, after first scrubbing the field of operations with as strong a solution as the patient can bear comfortably, I have been able to perform hundreds of internal manipulations, including the application of forceps, version, and the manual dissection of adherent placentas from the uterine wall, in surroundings that were often very insanitary and frequently filthy, without the slightest evidence of infection in these cases. My only case of milk-leg (phlebitis) occurred in a patient to whom I was called too late to render any assistance whatever and whose home and linen were clean and sanitary. The two or three cases of mild puerperal sepsis which I have encountered in more than 1,000 consecutive deliveries were in patients in whom there had been no internal interference of any consequence.

These results and experiences have led me to believe that, when strong compound cresol solution is lavishly used at all stages of these cases, and one's gloves are kept dripping with it whenever internal manipulations are undertaken, infective material is not carried to the patient from the outside, and that which is already present in the birth canal is apt to become attenuated in its virulence or rendered entirely inactive.

In order to show how effective this antiseptic is in the prevention of infection, and, at the same time, illustrate the value of calm and collected thinking in the emergencies which so often confront us in the management of obstetrical cases, the following case history is presented, with the expectation that some will criticise the procedure followed, in spite of the fact that it is not likely that my critics would have been able to arrive at a better solution of the problem. It is certain that they could not have obtained a better result.

Case Report

A young primipara, who had not accepted much prenatal care and whom I had not seen for some weeks, called me after she had been in labor for several hours. Examination showed the cervix to be about three-quarters dilated, but digitally, no presenting part could be palpated. Because of this, and of the fact that the patient's uterus seemed to be very uncomfortably distended with amniotic fluid, I suspected a monstrosity.

The amniotic sac was punctured, in the hope that the presenting part would be brought down within reach of the examining finger, but without success as far as this was concerned. This and the excessive amount

of fluid that escaped further confirmed my suspicions as to an abnormal birth.

Under ether anesthesia and with my examining gloved hand dripping with strong antiseptic solution, I examined her internally, with the whole hand, and was able to outline a head, which was devoid of everything but a face and a wrinkled mass of tissue resting in the depression formed by the base of the skull. As is not uncommon in such cases, the shoulders were extremely large, and because they had not engaged, they had prevented the head, because of its small size, from presenting in the usual manner. In spite of the fact that the uterine contractions were frequent and powerful, the head would not advance, and it became apparent that it would be necessary to perform version.

But here I met with a seemingly insuperable obstacle. Try as I would, I could not reach a leg to bring it down. What was to be done? If I had been "modern," I would have rushed my patient to a hospital and performed a cesarean section; but, for very good reasons, I felt that such a course would result fatally. Something had to be done, however, and forceps could not be used, the shoulders could not be made to engage, version could not be performed, and cesarean section was out of the question.

Only one course seemed open: to pass a fillet of gauze under the baby's arm and form a loop for traction purposes, in the hope that the shoulders might be induced to engage or that the child might be brought down a little so that version could be performed. To perform such a feat at the pelvic brim, in a primipara, was difficult but was accomplished without instrumental aid, but when traction was exerted, instead of advancing the shoulders, it brought down the arm instead, and I was confronted by a shoulder presentation. However, I had something upon which I could exert traction and make version possible. Since the hand was not presenting at the outside, I had to place a double hitch of a rope of gauze over my hand, then seize the baby's hand and slip the noose off onto the baby's wrist. After hard traction for a few minutes, I found, on making the attempt, that a leg could be reached and version performed. During all these manipulations, the field of operations was kept wet with the antiseptic solution and my gloves and the gauze used were also wet with it, and before the presenting parts (hand and arm) were returned to the uterus, they were bathed with it. Version was performed very carefully and gently between pains, so as to avoid the danger of rupture of the uterus.

Having performed version, the next thing to do was to exert traction upon the foot, but this could be done only by means of a band of gauze about the ankle, since, as in the

case of the hand, it was too slippery for adequate traction purposes, for the foot barely protruded from the pelvic outlet.

After strong traction for perhaps half an hour, during which time the greater part of the leg was delivered, no further progress could be made, and another examination revealed the fact that the baby's abdomen was so distended that it could not pass through the pelvic outlet. It thus became apparent that it would be necessary to open the baby's abdomen and disembowel it. As its inguinal region was now within reach, a small opening was made, which was dissected with the fingers until a loop of intestine was encountered and enough was pulled out so that the abdominal distention was overcome. With this obstacle removed, the abdomen and shoulders were delivered without much further difficulty or delay. The third stage of labor was also brief.

The time required for the whole operation, following the discovery of the condition present, was just two hours, and, during this period, the patient was anesthetized with ether, by the open drop method, the ether being administered by a practical nurse under my direct supervision. This was not so difficult or dangerous as it might appear to the inexperienced, for, by the open drop method, the patient's color and respiration can be readily observed at all times, and these are our most important guides in judging her condition.

The uterus contracted firmly after delivery. There were no maternal lacerations or other evidences of injury, and no nausea or other discomfort following the anesthetic. The puerperium was normal and uneventful. The baby weighed more than ten pounds, despite the fact that its head was insignificant in size.

Comments

In this case, the only assistance I had was provided by the husband, who kept me supplied with warm antiseptic solution. The patient's legs were held out of the way by means of a long, woven pulling band, which I carry with me.

I have gone into most of the details in connection with this case to give some idea of how the family doctor, alone and unaided, is able to meet and overcome emergencies without resorting to surgery, and with remarkable safety to his patients. Because of the modern eagerness for cesarean section, physicians are forgetting how much safer it is for the mother to deliver her, by any possible means, through the natural passages, rather than the abdominal route, particularly in emergencies.

Let us suppose that I had taken this patient to a hospital at the beginning of labor or after I had discovered, by manual examina-

tion, the nature of the case with which I was confronted. It is likely that, according to the prevailing practice, I would have taken the simplest and easiest course and resorted to cesarean section. But the late John Whitridge Williams has said: "Anyone with two hands and a few instruments can do a cesarean section; it frequently requires great intelligence not to do it."

If such an operation had been done in this case, the patient would have had hardly an even chance to survive. Not only had the cervix been slightly traumatized by manual examination, but the baby was so large and distended that an extremely large incision would have been necessary and the low operation would have been impossible. As it was, the patient was not subjected to much greater danger of injury or infection than occurs in any case of podalic version, because of the antiseptic technic employed. In my experience with this technic, which I have followed since this antiseptic became available, I have never lost a mother from sepsis, hemorrhage or any other cause relative to childbirth. During this time, only two of my cases have been hospitalized, both in recent years, and in neither case with any advantage to the patient.

Because so many physicians are advocating cesarean delivery in cases in which it is not justified, there seems to be a need for a strong remonstrance in this respect. In spite of the fact that this operation is one of the most formidable thus far devised, even in the hands of the most capable surgeons, and with a general mortality rate of 7 percent, according to Plass's last report on 900 cases, the merest tyros of physicians, with no other surgical training than that received during their internships, speak glibly of its advantages and of their willingness to perform it.

The almost universal hospitalization of maternity cases, which makes possible the rapidly increasing incidence of operative delivery, and the advocacy of an aseptic rather than an antiseptic technic, are the principal reasons why America's maternal mortality rate continues to be the highest in the civilized world. When many family doctors have practiced obstetrics for twenty-five years or more without once resorting to it, and, by following a common-sense antiseptic technic, have maintained a maternal mortality rate in childbirth of not more than two or three per thousand births, to them this modern furore for cesarean section seems little less than a "racket." This fad, on the part of not a few of its members, does not reflect credit upon a profession which, in the past, has been considered the most kindly, the most conscientious, and the most altruistic of all the callings of men.

Yaws on the Congo

By G. J. P. Barger, M.D., Bolenge, Belgian Congo, Africa

AMONG the bacterial micro-organisms are the treponemes—*Treponema pallidum* and *Treponema pertenue*—which have many resemblances. Both live naturally only in the

of yaws by neosalvarsan (neoarsphenamine) that each patient goes back home and sends in his relatives and friends. Even to us, hardened to remarkable things, the immediate results of the use of neoarsphenamine in these cases look little short of miraculous. Some of our leading authorities in tropical medicine consider that from one to six graded injections of this drug will effect a complete cure of yaws, the earlier cases often requiring only a single dose. One of our mission boys, who had about the worst case of yaws I have seen, was treated in 1918 by two injections, and up to February, 1925, he had had no return of the disease.

Our stations are constantly taxed to care for the people coming for treatment. One



Fig. 1.—Secondary eruption of Yaws. This case cleared up almost entirely in about two weeks, under neoarsphenamine treatment.

human body; both cause diseases which are transmitted directly from person to person by contact; both multiply rapidly in the human body and cause much the same series of tissue changes and symptoms; both attack old and young alike; and finally, both micro-organisms are killed by the same method of treatment.

The most striking differences between these two treponemes are that *T. pallidum* causes a disease, syphilis, prevailing the world over, which has a bad social reputation and which may be congenitally acquired; whereas, *T. pertenue* causes a disease, yaws, prevailing only in the tropics, which is in a higher class socially, and which is not known to be congenitally acquired.

Yaws occurs extensively all over tropical Africa, though there are no accurate figures as to its prevalence. Its ravages are almost unbelievable except on visual or photographic evidence. It is one of the diseases causing much human inefficiency, and is partly responsible for the Congo native's undeserved reputation for laziness.

So striking are the results of the treatment



Fig. 2.—A tertiary form of Yaws. This girl was observed at many intervals after treatment. The ulceration healed thoroughly and the scar pigmented black again so that, at a little distance, one would not note the results of the injury.

venerable Ngombe brought to Bolenge twenty-seven members of his family for treatment. From the Ngiri and Ubangi, from Lac Ntumba and beyond, from up the Congo, the Ikelemba, and the Juapa rivers, and from the forests back of our station, the people come to Bolenge. One sees in this human stream a panorama of Congo life. The little medallions or cloth squares suspended about the neck mark the Roman Catholic adherent. The raw heathen is seen with his body and head covered with red camwood powder and

palm oil. The pompom dress from Bokatola and the grass skirt of the Ibinza, are conspicuous in the groups. From the breech cloth to the well-kept European clothes, all stages of dress are seen in the same group. The eccentrically braided beard, the high, fantastically decorated hat of the Nkum, the leopard's teeth necklace, the fly broom, or the state chieftain's medal—these signs, when they appear among the suppliants for aid, entitle their bearers to prior attention. Infants in arms, however, take the ranking place.

These folk, appealing for help, have no idea of the relative importance of their symptoms. In their ignorance and superstition, the slightest unusual pain, even though it be only from an overworked muscle, may cause the greatest alarm. A medical worker must be wide awake on each individual case to differentiate the fearsick and the malingerer from the really ill, and the serious case from the trifling ailment. The numbers coming, and the varied languages spoken, make careful work difficult.

How to dodge microbes as they are thrown at him in thousands of droplets, as the patients go by, so that he to whom they all look for physical aid may not himself become a victim to the numerous and various micro-enemies, is a vital part of the doctor's problem. At Bolenge, in the new hospital made possible by groups in Louisville, Kentucky, and Chicago, Illinois, a glass plate, hung at the front of the consultation desk, maintains guard over the doctor as he talks to each patient face to face. It would be an enlightening experience to sit a few minutes in the doctor's seat and watch the procession go by: ulcers, skin diseases, venereal diseases, tuberculosis, leprosy, colds, whooping cough, measles, chicken pox, smallpox, yaws, sleeping sickness, dysenteries, worm infection, malaria. One never knows what one is to face next.

Besides infectious discharges, insect pests must also be guarded against. Screens about the ulcer and operating rooms, and in all the wards, protect against flies and mosquitoes. Fleas and lice, jigger-fleas and mites, are brought in by scores of patients. Plenty of other insect tormentors abound all about us, and tax our ingenuity in defending ourselves against them and their ravages on our food and clothing, and even on our houses.

The doctor finds his most important post to be in the reception room of the hospital. The native patients are quite satisfied, once they have had their condition considered by the doctor himself, to receive the actual treatment at the hands of native assistants, for whose work proper facilities have been provided.

The work of treatment at Bolenge is departmentalized, and two or more boys are assigned to each department. By teaching the native helpers one line of treatment at a time,



Fig. 3.—(Left) Child with Yaws. It had had this eruption for weeks before coming to the hospital at Bolenge.

Fig. 4.—(Right) Same child, 12 days after a single intravenous injection of neosalvarsan, administered by one of his own people, working at a mission hospital.

and supervising their work until the right way of doing a thing is fixed as a habit, they become fairly good technicians. Among the assistants, some win excellent reputations of their own through kindly treatment and helpful service in times of need.

When it becomes possible to treat yaws, or any other of the extensively prevailing diseases, on a large scale, so that there is hope of reaching practically every case and virtually wiping out the disease, it must be done free of charge to the natives, otherwise the vital thing in such campaigns, reaching every case, could not be accomplished. Such large-scale work can be done most effectively under the guidance of one or a group having already a substantial reputation among the people for honest treatment.

The numbers coming to the hospital of their own volition is some indication as to whether the doctor's reputation is good or bad. A good reputation, being built up piece by piece and requiring constant care to maintain, is a great prize; it is a necessity to effective, enduring work. The hospital must not rest satisfied with being merely a service unit. By becoming also a center of education it not only greatly enlarges its efficiency as a service unit, but it thereby sets in motion self-operating, life-improving forces. Our most fruitful work will, of course, be with the colonies of boys and girls who remain with us over a period of years. By means of models, demonstrations, pictures and projects, they are guided into paths of healthful and intelligent living. It is essential that such educational work go hand in hand with any large effort to eliminate one disease or another. Such educational work is effective also as a means of displacing the obstacles which superstitions oppose to the entrance of truth.

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Cold-Quartz Ultraviolet Rays in the Treatment of Sycosis Barbae

RECENTLY, just before I left home for a brief vacation, I noticed a small pimple at the right corner of my mouth, near the lower lip. I paid no more attention to it than to other small pimples I had had before.

My razor must have gone across it, because, in a few days, this little pimple had become a small patch of similar pimples over an area about half an inch in diameter, and after washing, had become a small mass of orange-yellow crusts.

I attributed this infection to impetigo, because I recollected treating several cases at the office several weeks before, and being on a trip, did not give the lesions as careful consideration as I would have done at home, although I treated the condition as impetigo, and tried to keep it clean with peroxide of hydrogen and Metaphen.

By the time I returned home, these crusts had formed on my upper lip, and my chin and under-chin surfaces had become sprinkled with itchy, pustular pimples and crusts. By this time I became convinced that it was not impetigo and consulted a dermatologist, who diagnosed it as acute sycosis barbae ("barber's itch"), and showed me why; also that it was a staphylococcus manifestation, with a tendency to chronicity. He advised small doses of x-rays about once a week, and prescribed a salve, to be used generously at night after shaving. After a week of this the lesions were no better, both corners of the mouth were involved, and ulcerated, painful fissures developed.

Having read up on the subject in Sutton's "Diseases of the Skin," and finding no cheerful news of it, I decided to try my own treatment.

Because the condition was staphylococcus in origin, I argued that my resistance to these

organisms was lowered, and I began taking staphylococcus undenatured antigen (Lilly's U. B. A.), beginning with 0.1 cc. intradermally and 0.1 subcutaneously, and increasing the dose by 0.1 cc. subcutaneously every second day, but maintaining the 0.1 cc. intradermally.

Locally, I cleaned the fissured and ulcerated corners of the mouth with peroxide; touched up fissures with 20-percent silver nitrate solution once daily; and applied Staphylojell (Lilly) as a dressing, continuously, day and night.

Knowing the powerful bactericidal value of the cold-quartz ultraviolet lamp, I decided to use it. I first cut holes in a sheet of paper, approximating the locations of my lesions, and exposed these areas through the openings in the paper every second day to the action of the ultraviolet rays, for from 20- to 30-second intervals. I also used the official unit for one or more minutes at the corners of the mouth.

The lesions began to clear up after the first treatment and were practically gone in a week. From this I conclude that cold-quartz ultraviolet rays, judiciously used (because they can be dangerous if overused), are the treatment of choice, with supportive measures as outlined, in this annoying and embarrassing condition, which, heretofore, according to Sutton, was a chronic condition under ordinary measures as used today.

I also believe, after this practical demonstration, that cold-quartz irradiation is our most powerful ally in all pyogenic infections of the skin and accessible cavities, and a profitable procedure for the general practitioner thus equipped.

THEO. H. MADAY, M.D.

Chicago, Ill.

NOTES AND ABSTRACTS

X-Ray Treatment of Sinusitis*

X-RAY therapy is a valuable adjunct in the treatment of chronic sinusitis. It is more effective in the hyperplastic type and allergic or borderline cases with attendant nasal infection.

The chronic purulent types of many years' standing and the type having had many operations show variable responses, most of which are not entirely favorable, but there is an occasional case in this group which shows a spectacular result, with subjective improvement and alleviation of focal symptoms. I am not able to predict when this will or will not occur.

The treatments should be given by a competent roentgenologist. The dose used by Butler and Woolley was 120 K.V.P.; 5 M.A.; 10 inch distance; with 4 mm. aluminum filter; for 10 minutes per area making about 900 small r. units. The dose used in this series has been variable; from 80 to 90 percent of the skin erythema dose has been given. In some cases 150 K.V.P. has been given with 25 M.A., 3 mm. of aluminum filter for six minutes per area at 50 cm. distance. The principle involved is to get the rays into the tissue.

The machines should be calibrated by an ionization process or the Victoreen instrument, to know its individual output. A lead shield is made so the antra are covered and the rest of the face uncovered. A dose, as above, is given through a correspondingly correct-size port, directing the rays up and back toward the sphenoid sinus; next, the ethmoids are treated on one side, the eye being covered and the previously treated antrum and the frontal covered. Next, the frontal is treated, directing the rays down and back. In this manner the sphenoid receives a dose from each treatment. Care must be exercised that there is no overlapping of irradiation. The tip of the nose should be covered at all times to prevent excessive dryness.

Patients are warned that they may have the symptoms of an acute cold for a few hours or a few days. All do not experience this; however, a large mask may be used and the antra, frontals, and the ethmoids of both sides treated through a large port for five minutes, then five minutes per area may be given in cases of a pansinusitis.

EDWIN D. WARREN, M.D.

Tacoma, Wash.

**Laryngoscope*, Nov., 1935.

Exercises for Constipation*

THERE is a wide variety of different forms of active and passive exercise in the treatment of constipation. Two simple sets of exercises, which can be easily demonstrated to every patient, are as follows:

- A. *Exercises in lying posture*; resting flat on the back with hands at the sides.
 - 1.—Deep breathing; inhale slowly; hold breath for five seconds; exhale slowly.
 - 2.—Raise right thigh with leg extended.
 - 3.—Raise left thigh with leg extended.
 - 4.—Raise both thighs with legs extended.
 - 5.—Raise thighs with knees bent.
 - 6.—Raise body upon thighs.
- B. *Exercises in standing posture*; legs together, with hands on hips.
 - 1.—Bend trunk forward as far as possible.
 - 2.—Bend trunk backward as far as possible.
 - 3.—Carry trunk to right side.
 - 4.—Carry trunk to left side.
 - 5.—Rotate trunk to right.
 - 6.—Rotate trunk to left.

Exercises are preferably carried out upon arising in the morning; if this is not practical, an hour before lunch or dinner. They can be done on a bed with firm springs and mattress, but still better on the floor, on a folded woolen blanket. They should be performed slowly, each exercise three times the first day and increased by one each day until ten to fifteen is reached. A few minutes' rest in the supine position is advisable afterwards; patients must be advised to acquire the habit of full body relaxation whenever they rest. Exercises should be done daily for many months; they may be varied according to the individual conditions.

New York, N. Y. RICHARD KOVACS, M.D.

Pyretotherapy and Malaria in Paresis

A CAREFUL study of 70 cases of paresis, half of which were treated with therapeutic malaria and half with hyperpyrexia induced with a Kettering hypertherm, shows that there are certain advantages in using artificial hyperpyrexia, which can, if indicated, be combined with injections of tryparsamide.

If a patient reacts poorly the treatment can be stopped at once; and the physical method is safer for patients with secondary anemia, renal insufficiency, or emaciation. Pa-

**Rev. of Gastroenterology*, Dec., 1935.

tients taking mechanical pyretotherapy treatment generally need not be hospitalized.

In using the hypertherm a certain amount of cooperation by the patient is required, and some disturbed patients have to be anesthetized.—DRS. C. H. BARNACLE, F. G. EBAUGH, and J. R. EWALT, Denver, Colo.

Aloe Vera in X-Ray Ulcers*

IN this country most dermatologists and surgeons treat x-ray ulcers by surgical removal of the affected tissue, closing the defect by sutures, grafts or skin flaps.

In 1934, following the suggestion of Dr. Preston Collins, Florida Medical Center, Venice, Florida, I began using an ointment, made by mixing equal parts of the yellow, gelatinous, resinous substance contained in the leaves of the *Aloe vera* (Barbados aloe) and Aquaphor,† which was massaged into the skin of the affected areas every night.

Another way to apply this substance is to place slices of the fresh aloe leaves over the open lesions, bandage them in place, and remove them after several hours, when it will be found that the skin has absorbed the gelatinous material, leaving only the fibrous shell of the leaf. This plan may be used at night and the ointment applied and covered with cellophane during the day.

These applications have given highly satisfactory results in several cases of x-ray ulcers, and have caused some improvement in x-ray telangiectases.

CARROL S. WRIGHT, M.D.

Philadelphia, Pa.

BOOKS

Hinsie and Blalock: Electropyrexia

ELECTROPYREXIA IN GENERAL PARALYSIS. By Leland E. Hinsie, M.D., Research Associate in Psychiatry, New York State Psychiatric Institute and Hospital; and Joseph R. Blalock, M.D., Instructor in Psychiatry, College of Physicians and Surgeons, Columbia University. With a Preface by Clarence O. Cheney, M.D. Pages 90. Utica, N. Y.: State Hospitals Press. 1934. Price, \$1.25.

This brochure is in two parts: The first and more extended comprehensively reviews the literature of electropyrexia, especially its clinical application in general paralysis. Part II presents the results of more than three and one-half years of clinical application of this method by Drs. Hinsie and Blalock in the treatment of general paralysis. From a study of the conflicting reports of the numer-

*J. A. M. A., Apr. 18, 1936.

†Dr. Collins has now prepared a somewhat similar ointment, which is marketed under the name of Alvagel.

ous investigators cited, the authors feel that, "although an excellent start has been made, little in the nature of finality may be expressed."

This booklet should be helpful to all who are in any way interested in the hyperpyrexial treatment of general paralysis.

J. E. G. W.

NEWS



Courtesy, Westinghouse Electric and Mfg. Co.

Westinghouse experts examining a Sterilamp, in the hands of the man at the right.

Germicidal Rays from Sterilamp

A NEW development in the field of radiation is a low-wattage gaseous conductor (shown in the picture above), which is known as the Sterilamp and is germicidal to mold spores and bacteria in the air.

Producers and handlers of foods—meats, baked goods, etc.—are using these tubular generators to kill molds and bacteria which cause spoilage of these products, and thus saving millions of dollars, which would otherwise be added to food prices.

Clinically these tubes, devised by Dr. Deryl Hart, are being used in the operating room at Duke University Hospital, Durham, N. C., to reduce the possibility of wound contamination. They are so placed as to give maximum bactericidal action around the breathing line of the operating room, where contamination most commonly arises.

PROCTOLOGY

ASSOCIATE EDITOR

WILLIAM A. HINCKLE, M.D., Peoria, Ill.

Prolonged Local Anesthesia

By William A. Hinckle, M.D., Peoria, Ill.

THE ideal local anesthetic should be non-toxic and sufficiently stable to permit of easy sterilization. Introduction into the tissues should not be painful and should not be followed by undesirable after-effects. Anesthesia, sufficiently profound and prolonged to permit of painless surgical procedure, should be quickly induced, and should be followed by an analgesia of sufficient duration to minimize the after-pain. The anesthetic should also be reasonable in price.

Of the numerous drugs and combinations that have been introduced and recommended as local anesthetics, none possesses all of these much-to-be-desired requisites. We need consider only those most commonly used.

Procaine, the most used of all local anesthetics, may be used as a yardstick by which to measure others. It is reasonably free from toxic effects, can be sterilized, is not painful when injected, acts quickly, is not followed by deleterious after effects, and is moderate in price. Its action, however, is of only brief duration, seldom exceeding 30 minutes. Fortified by the addition of epinephrin it may last about twice that long. A period of hyperesthesia is common following procaine anesthesia.

Butyn is non-irritating, can be easily sterilized, acts quickly and profoundly, and leaves no untoward local after effects. The duration of the anesthesia produced is about the same as that from procaine. It is more toxic and is much more expensive than procaine, over which it has little or no advantage, except for topical application to the eye.

Metacaine, one of the newer anesthetics, may be sterilized by boiling, is not painful when injected, and produces a rapid and satisfactory anesthesia with no untoward local effects. It is reasonably safe if used with judgment. For infiltration anesthesia it has little, if any, advantage over procaine and is much more expensive than the latter.

Nupercaine is stable, can be boiled, is non-irritating when injected, and acts quickly and completely without undesirable local after effects. The anesthesia is more prolonged than that of most local anesthetics, being

about two or three times that of procaine, but is not long enough. Nupercaine is toxic and must be used with caution. It is also unnecessarily expensive.

Diothane has a more prolonged action than Nupercaine, often lasting for several days. Its toxicity is not great. Injection, however, is attended with considerable discomfort, so much so that it is recommended to precede its use with procaine. Anesthesia is slow in appearing and edema often follows its use, and occasionally sloughs. It is more expensive than is warranted by its efficacy.

Injections of oily solutions of procaine, nupercaine, butesin, anesthesin and other anesthetics have been recommended and used for both operative and postoperative anesthesia. Such solutions, being slowly absorbed, give a more prolonged action. They are slower than aqueous solutions in producing anesthesia and are not free from local complications, such as slough and abscesses. When used about the anus, they sometimes produce temporary loss of sphincteric control. In my experience, oil anesthetics are not all that could be desired.

The only other drug that has received much attention as an anesthetic of prolonged action is quinine and urea hydrochloride. It is non-toxic and easily sterilized. The anesthesia produced lasts from several hours to several days, depending on the strength and amount of the solution used. When first introduced as an anesthetic, about a quarter of a century ago, it was enthusiastically endorsed and extensively used for some time. Gradually it became less popular, though still used by a few surgeons. This decline in favor was due to several causes. Injections of quinine and urea hydrochloride are usually attended by considerable discomfort; anesthesia appears rather slowly, usually requiring from 5 to 15 minutes, and is not always so complete as is desired. Injections of sufficient strength and quantity to produce complete and prolonged anesthesia are often followed by induration of the tissues sufficient to delay healing. Sloughs are not of infrequent occurrence. This tendency of quinine and urea to produce plastic

inflammation and induration when injected into the tissues is what makes it of value in obliterating hemorrhoids.

As with procaine, in my experience, there is often a period of more or less pain shortly after operation under quinine and urea, before analgesia is apparent. Combining procaine or other quicker-acting and less irritating anesthetics with solutions of quinine and urea in a measure helps to eliminate the preliminary irritation and improve the operative anesthesia, but does not eliminate the undesirable local after effects. Nor does the combination eliminate the hyperesthesia or period of after-pain which is so prevalent after the use of procaine or quinine and urea alone.

Desiring, if possible, to overcome these disadvantages, I decided to experiment with other salts of quinine. Anesthetic solutions with a pH approaching that of the body fluids (6.0 to 7.0), especially if isotonic, have been shown to be less irritating when injected, to diffuse more rapidly into the tissues, and so to produce a quicker and better anesthesia with less tendency to undesirable after effects than more acid solutions of the same salt.

Quinine and urea hydrochloride is merely quinine dihydrochloride, or the acid hydrochloride of quinine, the acidity of which has in part been neutralized with urea. As urea has no anesthetic or other desirable properties of itself, its addition to quinine is of no value for the purpose under consideration. A 4-percent solution of quinine dihydrochloride is decidedly acid, having a pH of approximately 2.6. A solution of quinine and urea hydrochloride of similar strength is slightly less acid, having a pH of about 3.1.

With these facts in mind I tried several of the neutral salts of quinine instead of the acid salt usually recommended. Of the three most common neutral quinine salts—sulphate, hydrobromide, and hydrochloride—the last-named, which is the most soluble, seemed the most promising.

Quinine Hydrochloride

A 4-percent solution of quinine hydrochloride had a pH of about 6.4, so is much less acid than quinine and urea hydrochloride, with its pH of 3.1. Quinine hydrochloride is soluble to the extent of about 5 percent in distilled water, but only to a little over 2 percent in physiologic saline solution. The latter however, is more than ample for infiltration anesthesia.

As anticipated from the above facts, I found solutions of this neutral salt much less irritating when injected than the acid double salt. Better anesthesia, followed by a prolonged analgesia, is quickly induced. Solutions of 2 or 3 grains to the ounce of physi-

ologic salt solution produce a good and rapid anesthesia. In fact, a solution of 1 grain to the ounce, or even 1 grain to 2 ounces, will produce very good anesthesia in most cases. The results from these weaker solutions, however, are not always so rapid and complete as with the stronger solutions.

After trying various strengths, I find a solution of quinine hydrochloride, 3 grains to the ounce of physiologic saline solution, most satisfactory. It should be remembered that this salt contains about 33 percent more quinine than does the double acid salt, consequently a 3/5 percent solution of the former is the equivalent in alkaloidal or anesthetic strength to about 4/5 percent of the latter.

While anesthetic solutions of quinine hydrochloride in physiologic saline solution are much less irritating on injection than a similar strength of quinine and urea hydrochloride or any of the other acid salts of quinine, they are not so painless as solutions of procaine or nupercaine. Most patients, however, make little complaint if the injection is made slowly. Also the period of postoperative discomfort, so common after solutions of quinine and urea before analgesia sets in, is less with quinine hydrochloride, though often still apparent.

To eliminate these two minor disadvantages I tried several combinations of other anesthetics with quinine hydrochloride. Combining it with procaine, in strengths of 1/2 to 1 percent of the latter, diminishes the discomfort at the time of injection but does not eliminate the immediate postoperative after-pain. In fact, I am inclined to think the period of hyperesthesia, characteristic of procaine, is more apparent with procaine and quinine hydrochloride combined than with quinine alone. Another disadvantage of the combination is that the solution tends to precipitate in a short time, making stock solutions impractical.

After trying several other combinations I found nupercaine 1:2,000, or even less, combined with the quinine hydrochloride solution, eliminates most of the discomfort at the time of injection, makes the anesthesia more profound, and, in most cases, seems to bridge over the period of discomfort that is often apparent soon after the operation. Such solutions even after standing for weeks, do not precipitate.

I have now used a solution of quinine hydrochloride for infiltration anesthesia in over 475 cases. These have ranged all the way from removal of tabs, crypts and thrombotic tumors to operating upon hemorrhoids, fistulas, pilonidal cysts, and doing divulsions. Of this number, quinine hydrochloride alone was used in 200 cases. Quinine hydrochloride and procaine was used in 25 cases. In the

remaining cases the quinine hydrochloride was combined with nupercaine.

Without presuming to pass final judgment in this preliminary report, I do wish to record my impression that quinine hydrochloride approaches nearer to the ideal local anesthetic, as defined at the beginning of this article, than any single drug I have used. Combined with nupercaine as above suggested the results have been even more satisfactory than with the quinine alone. Epinephrin, 4 to 5 minims to the ounce, still further improves its action.

While the results have not been ideal in all cases, many have reported little or no postoperative discomfort. Others have reported only a moderate amount. Only a few (less than 10 percent) have complained of real discomfort. Some postoperative soreness is, of course, present in most cases, but this is much less than formerly, when other anesthetics were used in similar operative procedures.

Edema, induration or delayed healing have not been observed in any of this series. I have had no breaking down of tissue or other complications that could be definitely attributed to the quinine. In two cases, following the use of 50 cc. of 3 grains to the ounce, there was some slough that might, or might not, have been due to the anesthetic solution. Both cases healed promptly.

From these and other experiments and experiences with quinine salts I am persuaded that the undesirable results from quinine as a local anesthetic, such as discomfort on injecting, slow and imperfect anesthesia, edema, and induration with delayed healing and occasional slough, are in large part due to the use of an acid instead of a neutral salt, and that these undesirable results can be eliminated by using the neutral hydrochloride instead of the acid quinine and urea hydrochloride.

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NOTES AND ABSTRACTS

The Treatment of Internal Hemorrhoids*

RIDDOCK says that, in spite of the fact that the injection treatment of hemorrhoids is well established, its value does not yet appear to be fully appreciated by the medical profession in general. He describes a method by which uncomplicated hemorrhoids may, not only be cured, but cured quickly.

In a considerable majority of hemorrhoids there is a greater or less degree of redundant folding of the mucosa in the lower third of the rectum, and as this condition is frequently seen in cases where the piles are small, and their prolapse slight and of short duration, it is at least possible that the loose condition of the mucous membrane is primary, the venous dilatation occurring secondarily due to lack of support. This view would fit in with the well known hereditary nature of the complaint. Whatever opinion is held as to the essential cause of hemorrhoids, this prolapse of the lower rectal mucosa is of the first importance when treatment is concerned, for if it is not dealt with, treatment tends to be unsatisfactory in a considerable percentage of the cases, and relapse is apt to occur.

The use of a weak phenol-glycerin solution, with the high injection technic, offers advantages not possessed by stronger solutions or by

solutions made up with an oily menstruum. As large quantities of such a solution can be given at each visit, a more rapid cure results. He finds the following very satisfactory: phenol (liquid), 4 cc.; glycerin, 40 cc.; water, to make 100 cc.

The injection should be started at the highest point where the mucosa is lax. Several injections are given, the maximum amount of solution at each site being, as a rule, 2 cc., though occasionally 3 cc. may be given. Subject to this maximum, the quantity injected at each puncture varies with the laxity present at that point, so that there is some degree of automatic control of the amount given. A case with much prolapse will accommodate more solution than a case of simple piles, and the cure will be relatively much quicker. There need be no fear of using 10 cc. at a treatment, though in the less marked cases smaller amounts will be required.

According to some authors, the mucous membrane should become blanched over the injected fluid and often shows fine vessels running over it—the "striation sign." Riddock regards this sign as definite evidence of local over-dosage, and a thing to be avoided. Then the mucosa of the lower rectum is fixed to the underlying tissues, the piles themselves, which lie at the ano-rectal juncture and in the upper half of the anal canal, are directly injected, and the end result

*The Practitioner, May, 1935.

shows well-marked fixation of the lining of the bowel and complete shrinking of the hemorrhoids. Although there are often small nodules of fibrous tissue to be felt, there is no "leatherness" of the mucosa and little, if any, interference with the distensibility of the canal. The patient is completely and rapidly freed of his symptoms.

The essential point aimed at in the method described is the treatment, not only of the hemorrhoids themselves and the area immediately above, but the mucous membrane of the lower third of the rectum, where it shows any degree of laxity, as it does in the majority of cases.

The method described has been developed as a result of dealing with cases recurring after operation and after injection treatment by older methods. The fixation of the anal and lower rectal mucosa is such that the author believes recurrence to be practically impossible. There is the further advantage that it requires relatively few treatments—usually not more than three, though four are necessary for the more advanced cases. Discomfort is slight or absent, sloughing is uncommon and when it does occur has no deleterious effects.

W. A. H.

The Preparation of Local Anesthetic Solutions

DETAKATS¹ reports a startling lack of uniformity in the preparation and sterilization of anesthetic solutions. No matter what the anesthetic substance is, the molecular concentration of the injected solution must be equal, at least within narrow limits, to that of the blood and body fluids, corresponding to a 0.9-percent sodium chloride solution.

A one-percent, or even two-percent Novocain (procaine) solution, made up with distilled water or tap water, is markedly hypotonic. It hemolyzes the red cells, ruptures the connective tissue and fat cells, and produces tissue necrosis. Clinically, one observes a marked induration of the subcutaneous tissue, with a prolonged hyperemia of the skin or even a breakdown of the perfectly aseptic wound. These untoward results are less apparent in muscular tissue, though doubtless they are present to some degree. The use of such solvents must be most emphatically condemned.

Procaine hydrochloride, the most com-

monly used local anesthetic, when dissolved in physiologic saline solution, gives a strongly acid reaction, having a pH of about 4.85. With increased alkalinity of the solution, a faster and more profound anesthetic action can be obtained with less irritation on injection. In nerve block, a buffer solution is strongly recommended. For infiltration anesthesia, the unbuffered physiologic salt solution seems satisfactory.

Both procaine and adrenalin (epinephrin) are sensitive to alkaline reactions and precipitate easily above a pH of 8. Hence, freshly-prepared, buffered solutions alone are reliable. Ampules, unless well to the acid side, are apt to precipitate or deteriorate. This is particularly true of combined solutions of procaine and epinephrin. The latter should always be added to the anesthetic solution just before using.

It must be remembered that heating of any kind diminishes the anesthetic properties of Novocain. The best method of preparing the solution is to add the sterile crystals or tablets to sterile, physiologic saline solution just before using. An easier way is to use ampules containing a sterile 20-percent solution and add this to the required amount of sterile saline solution when needed.

Tennent,² in a very comprehensive and informative article, emphasizes the desirability of a proper pH for all anesthetic solutions. He says that a qualitative relationship exists between the pH of the solution and its efficiency.

Procaine hydrochloride solutions are normally acid. With the addition of sufficient alkali to raise the pH to match that of the blood, which is 7.4, anesthesia is more rapidly produced, more profound, less painful and the tissues heal more rapidly. Unquestionably an alkaline solution is less toxic.

Any anesthetic of the procaine type is unstable when combined with epinephrin and cannot be kept in stock solutions. Epinephrin solution is acid, with a pH of 3.3, and when added to a procaine solution, which is also acid, lowers the pH still more. The pH of a solution should be between 6.4 and 8.4, yet most ampules have a pH of 3.5 to 6.5. Such solutions may be alkalized by the addition of a small amount of a solution of sodium carbonate, but the solutions must be used soon after preparing, as they precipitate out in a few hours.

Freeman, of Northwestern University, advises me that many pharmaceutical houses now buffer their ampules with sodium phosphate to about pH 6.8 and that such solutions are fairly stable.

W. A. H.

1.—*Bul. Am. Coll. Surg.*, Dec., 1933.

2.—*U. S. Naval Med. Bul.*, Oct., 1934.

A LIVING FOR THE DOCTOR

(The BUSINESS of Medicine)

The Mission of the Physician*

By Joseph E. G. Waddington, M.D., Detroit, Mich.

ALTHOUGH "to cure sometimes; to relieve often; and to comfort always," is extremely important, this is not the primary, fundamental purpose of the physician. The real mission of the physician is more often misunderstood than correctly appreciated. A doctor, usually, is thought of in much the same vague manner that one thinks of the fire department — something indispensable, but to be employed only when disaster impends or has already occurred.

Periodic inspections lessen fire hazards and thus prevent or minimize a number of otherwise possibly disastrous conflagrations. In regard to health, however, we have been advised so often that prevention is superior to cure that it merely acts as a sedative bromide, instead of a stimulant to induce us to secure professional attention prior, instead of subsequent, to physical and mental inefficiency.

There is a deplorable need of attention to the true, scientific, practical duty of the physician, which is not to prescribe pills and potions; not to remove diseased and useless organs and tissues; but to be a teacher, instructing an appreciative community how to preserve health as a moral and religious duty, for health is the basis of all social virtues. "We can no longer be useful when we are not well."

William Ewart Gladstone, prime minister for Great Britain in the time of Queen Victoria, was the author of the concise but significant statement: "In the health of the people resides the wealth of the Nation." Unfortunately, the medical profession, which has both the time and the inclination, is not equally well provided with the opportunity to dispose satisfactorily of this intimately related problem of health and economics.

We are creditably informed that 90 percent of all sickness and disability is chronic in character. Although the mission of the physician is to instruct the public how to obtain and retain health, economic conditions unfortunately prevent a number of people from securing and retaining adequate professional attention; also health, although theoretically

considered a priceless blessing, is rarely considered, practically, until it has become impaired; and it is always easier and, apparently, cheaper to buy some popularly advertised nostrum than wisely to consult a physician.

State control of medicine would not improve conditions; politics and medicine do not mix satisfactorily. Medicine is an altruistic profession; politics, regrettably, is too often just the reverse. It is an indisputable fact that the medical profession has spent and is spending untold millions, in time and money, in caring for the indigent and semi-indigent sick; but there is little, if any, record of any similar personal sacrifice upon the part of politicians to assist the poor and destitute, whether sick or well.

Medical supervision and control are indicated, as heretofore, but, in addition systematized public education in regard to health; more emphasis upon how to obtain and retain health, and thereby lessen the probabilities of premature and prolonged sickness and disability. The public must be more responsively aroused to the need for prevention of many initially simple conditions, which, if neglected or imperfectly cared for, will inevitably develop into serious disability and finally death. Many people are perfectly willing to admit the necessity for exercise, temperance, fresh air, and needed rest; disappointingly, they foolishly and disastrously ignore the vital need for individual and periodic advice from him who is ever at work to guard their health and, finally to soothe them at the approach of inevitable dissolution.

Another unfortunate factor is the ignorance of the people who confidently believe that popularly advertised remedies; blatantly advertised "cures"; and certain illogical ideas and methods of healing are preferable to consulting a scientifically educated and clinically experienced physician. The average individual is naturally reluctant to incur the expense of consulting a physician for what he considers "trivial aches and pains." But who, except the experienced physician, can safely determine whether an apparently simple ailment may or may not be the forerunner or warning of something that may subsequently become more serious? The occasional mild attack of

*Summary of a radio broadcast, Dec. 26, 1935, under the auspices of the Wayne County (Mich.) Medical Society.

indigestion; recurrent headaches; a backache; the "common cold," are only some of the innumerable so-called unimportant complaints or conditions, for which everyone has a sure-cure remedy. The most serious and painful diseases originally commence with nothing particularly alarming; and only the physician can correctly advise as to the preventive "stitch in time" that shall save many and less satisfactory attempts at cure.

Not infrequently we hear of patients who have consulted one or more physicians and, obtaining no relief, in desperation have gone to some one not a physician, and obtained what they consider a cure. Hundreds of years ago it was wisely said: "He is the best physician who knows how to distinguish the possible from the impossible." Eventually and dishearteningly such cures, as they are optimistically termed, prove to be nothing more than a temporary drugging or masking of certain premonitory symptoms and, sooner or later, the patients return to some physician, worse off than before.

Ever since Adam fell into a deep sleep, preparatory to undergoing an operation upon his rib and thereby placing himself on record as the first and only male to give birth to a human being, man has insistently demanded relief from pain. While such a natural desire is not to be condemned, nevertheless, the ignorance underlying the intolerance to pain is regrettable. Relief of pain does not necessarily imply equal relief from the condition from which the pain arises. The physically (and mentally) deteriorated, who are hopefully induced to leave their best friend, the true and tried physician, for something inferior to the best, invariably and ultimately regret the cost in wasted time and money and, more disastrously, in decreased health. "Lack of education, not lack of intelligence, makes credulous victims for the incredible."

What may be really curable today, with the best of medical attention, becomes increasingly incurable tomorrow, with neglect and improper consideration.

The remedy can only consist in education of the public into acceptance and practical application of the fact that the primary, fundamental mission of the physician is *not* to cure, or attempt to cure, but to *prevent* disease. Physicians should be more publicly, as well as privately, employed to instruct the people in what to do and, equally important, what not to do, if they would live long and healthy lives. How enjoyable or how miserable shall be the journey along our individual life's road is a personal problem, dependent upon how we avail ourselves of practical and unremitting medical supervision of our daily habits and mode of life.

The wise and sympathetic physician not only ministers to a diseased and afflicted body but, likewise, to a mind diseased. Religion and medicine are not very far apart in many respects. He who disobeys or ignores the physical laws of nature and health also violates the laws of right thinking and moral restraint. To think rightly and to act rightly require both a healthy mind and a healthy body. Mind and matter cannot be successfully divorced from one another.

Health is a spiritual as well as material condition. The individual with nothing but faith in his health, who does not believe in consulting a physician until compelled to do so by some unbearable pain or disability, has not learned the true mission of the physician. This consists in teaching man how to live, not to a ripe and rotten, but to a green and vigorous old age; and ever to remember that "He who cures a disease may be the most skillful, but he who prevents it is the safest physician."

110 Atkinson Ave.

NOTES AND ABSTRACTS

Fallacies and Facts

FOR certain purposes, which will be readily apparent to well-informed and thinking people, notable among which is the fomenting of class antagonism and conflict, certain fallacious statements have been circulated so widely and so persistently that the unthinking have come to accept them as true and tend to act upon that mistaken impression. In the interests of clear thinking and wise action it will be well to consider some of these fallacies and the corresponding facts.

Fallacy: "Ten percent of the people own

ninety percent of the wealth of this country."

Fact: The actual financial figures show that about 80 percent of the people own about 70 percent of the wealth, leaving only 30 percent for the 20 percent in the "higher income brackets." In other words, 80 percent of our people are "capitalists."

There are approximately 24,000,000 automobiles registered in the United States—an average of nearly one to every family, and the number of families that own more than one car is relatively so small as to be practically negligible. More than 17,000,000 homes in this country are equipped with radio re-

ceiving sets. These facts show the wide distribution of wealth.

Fallacy: "Five percent of the people receive 85 percent of the income of the United States."

Fact: At present nearly one-third of the Nation's income is going for taxes. Of the balance, between 70 and 80 percent is paid out in salaries and wages to the more than 22,000,000 employed workers in the country, who constitute about 60 percent of those old enough to share in the national income at all. The number of new automobiles sold last year to people with incomes of over \$15,000 a year was less than 1 percent of the more than 2,000,000 total sales; while 62 percent (about a million and a quarter) were bought by people with incomes of less than \$3,000 a year.

Fallacy: "The rich are growing richer, while the poor are growing poorer."

Fact: In 1900 there were 5 million individual savings bank deposits in this country; in 1932 there were 52 million—nearly half the total population. In 1900 there were 7 million home owners in the United States; in 1930 there were 14 million. In 1900 there were 7 million holders of life insurance policies; in 1930, 66 million. In 1850 the average factory wage was \$248 a year; in 1931 it was \$1,102.

Fallacy: "The use of labor-saving machinery results in unemployment."

Fact: From 1870 to 1930, the number of wage earners in the country increased from 25 to 30 percent faster than the increase in population, in spite of the unprecedented increase in labor-saving machinery during that period.

Fallacy: "I don't pay any taxes because I own no property and my income is small."

Fact: Everybody pays taxes—on food, clothing, tobacco, gasoline, chewing gum, playing cards—everything anybody eats, wears or uses in any way.

Fallacy: "Everyone in Russia has a job."

Fact: Before the signing of the Emancipation Proclamation, every Negro in the United States had a "job," and also had "social security." They were slaves!

AN AMERICAN THINKER.

Look for **THE LEISURE HOUR** among the advertising pages at the back.

Hospitalization Insurance

SINCE it is now generally recognized that the most important factor in the costs of medical care is the heavy expense of hospitalization, when that becomes necessary, there has been much discussion of plans to provide for such emergencies.

Now the Bankers National Life Insurance Company (and probably others also) is offering hospitalization policies which provide for the payment of hospital costs at the rate of \$6.00 a day for a maximum total of 21 days in any policy year. The cost of this protection is not now at hand.

This company is circularizing hospitals and certain physicians, to enlist their cooperation, and has prepared literature for distribution to the members of the laity who may be prospective customers for this type of protection.

On the face of it, such a plan looks like one good way of meeting the specious arguments of the advocates of State Medicine, and as such it deserves the sincere cooperation of physicians.

I shall be glad to hear from any who have given this matter serious consideration and who have something constructive to say, and to publish such communications as seem to warrant it.

GEORGE B. LAKE, M.D.

Waukegan, Ill.

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BOOKS

Desvernine: Americanism or a Dictator?

DEMOCRATIC DESPOTISM. By Raoul E. Desvernine. New York: Dodd, Mead & Co. 1936. Price, \$2.00.

The author of this book (the title of which does not describe a political party, but a philosophy of government) contends—and adequately proves—that the real and basic issue before the people of this country today is whether or not American political institutions—individual freedom and self-government—shall be subverted through the veiled manipulation of democratic processes and the distortion of democratic ideals. He shows clearly that the philosophy of government which we call Americanism can survive only through the preservation of the Constitution, which is the government's guarantee to its citizens for the continued enjoyment of the rights of man. He further demonstrates that the present tendency is definitely away from constitutionalism and toward the totalitarian or paternalistic State.

Here is a direct and clearly written book which should be a part of the education of every voter, whatever his present political affiliations may be, to enable him to understand just what his vote next November will mean, in order that he may make his selection of the kind of government he and his children and grandchildren will live under, intelligently and with his eyes open.

THE SEMINAR

"A MONTHLY POSTGRADUATE COURSE"

(NOTE: Our readers are cordially invited to submit fully worked up problems to the Seminar and to take part in the discussion of any or all problems submitted.)

Discussions should reach this office not later than the 5th of the month following the appearance of the problem.

Address all communications intended for this department to The Seminar, care CLINICAL MEDICINE AND SURGERY, Waukegan, Ill.)

Problem No. 6 (Surgical)

Presented by Dr. E. S. Pomeroy,
Salt Lake City, Utah

(See CLIN. MED. AND SURG., June, 1936, p. 307)

RECAPITULATION: A man of 69 years had one lobe of his prostate removed, suprapubically, two years ago, made a slow and stormy recovery, and has been ill ever since. A tentative diagnosis of carcinoma was made.

When seen, two years after the operation, he was much debilitated and was suffering from constant hematuria; great frequency, day and night; dysuria and dribbling. The right lobe of his prostate was soft and exquisitely tender, but not greatly enlarged.

Requirements: What was the cause of the conditions presented? (2) What would you have done for this patient?

Discussion by J. R. Nicholson, M.D.
San Antonio, Texas

The clinical picture presented by Dr. Pomeroy suggests that a differential diagnosis is necessary to determine the source of the bleeding and the cause of the burning and frequency of urination.

The history of a man sixty-nine years of age, with continuous bleeding for the past year, and the loss of twenty-five pounds of weight, together with frequency and burning on urination, is one of malignant disease of the prostate. We must rule out (or in) tuberculosis of the prostate, malignant disease of the bladder, and calculi of the bladder and prostate, with or without urinary retention due to bladder-neck contracture or prostatic hypertrophy. Since the degree of the present bleeding and the possibility of a severe hemorrhage prevent a cystoscopic examination, we must proceed without one for the present.

To establish the diagnosis of cancer of the prostate we must find metastases in the pelvic bones or vertebrae or find the biopsy specimen from the prostate malignant. The prostate does not have the stony hardness

characteristic of a malignant condition. This degree of density frequently is not found in some prostates and malignancy cannot be ruled out on this fact alone. Removing part of the prostate two years ago certainly should have stirred up metastases in even a sluggishly growing cancer.

The difficulty of removing the prostate, due to the dense adhesions to the contiguous structures, particularly to the seminal vesicles, makes us suspect tuberculosis of the prostate, descended from the epididymis by the way of the vas and seminal vesicles.

All genital tuberculosis is secondary to tuberculosis of the lungs or bones, with few exceptions. To make a definite diagnosis of tuberculosis of the prostate it is necessary to examine the lungs and bones for tuberculosis, as well as to palpate the epididymis and vas for nodules and irregularities. It is possible that the tubercle bacilli could be found in the sediment of a centrifuged specimen of urine, or by inoculation in a guinea pig. One would expect that genital tuberculosis would have been discovered in a man sixty-seven years of age before the operation, either by the history or the physical signs and symptoms. Genital tuberculosis is rare after the age of forty, unless it is a healed lesion that has broken down, which might account for its being overlooked in this case. It should be ruled out or in by a careful examination of the above-named organs.

The plain x-ray picture of the kidneys, ureters, bladder, and prostate will determine whether there are metastases in the bones of the pelvis and vertebrae, as well as the presence of stones in these organs. Cystograms in the anterior and lateral positions will reveal any diverticula and possibly any neoplasms of the bladder.

The information obtained by the above examination should definitely determine the type of pathosis present. From the description of the conditions found in the prostatectomy and the subsequent history of continuous bleeding, frequency and burning on urina-

tion, one would favor the diagnosis of tuberculosis of the prostate. However it is rare for a man at this age to survive genital tuberculosis unless it is healed, and nothing is said in the history about the physical findings in the epididymis and vas, and no history of tuberculosis is mentioned.

Regardless of whether it is a malignant or tuberculous condition, a suprapubic cystostomy should be done and drainage established by means of a suprapubic catheter. This will give the prostatic urethra a rest and, if stones are present in the bladder, they can be removed. This would, as a matter of fact, take care of the urinary retention, if present.

Should the bleeding and frequency be due to a benign obstruction (which is improbable), it should be removed with the resectoscope. In the event a malignant tumor of prostate should be found, deep x-ray treatment and opiates are the best methods for alleviation of pain. Presacral resection and ureteral transplantation come to mind, but the former is unreliable in results, and the patient probably would not survive the latter. Chordotomy, a severe operation, would relieve the pain.

Discussion by Theo. H. Maday, M.D., Chicago

As the condition was given a tentative diagnosis of low-grade carcinoma, it really must have been a malignant adenoma and, in all probability, an adenocarcinoma, because of the loss of weight, dribbling, dysuria and blood, with blood clots constantly present.

The cause of the symptoms was invasion and occlusion of the prostatic urethra, to a large extent. I would place the man in bed, on a soft and bland diet, with plenty of balsamics, such as Sanmetto, by mouth every 2 hours, also tincture of hyoscyamus and codeine; place on indwelling catheter and irrigate with a mild potassium permanganate solution about 2 or 3 times daily for a few days; and prepare for electro-surgery. In addition, belladonna and ichthyol or opium suppositories by rectum, two or three times a day, would be of benefit with the above procedures.

When possible, under general anesthesia and transurethrally, the prostatic punch method could be used; or better, electrocoagulation with a loop, cutting out the obstructing portion. Radium or x-ray irradiations would be of assistance later.

Discussion by John Clark, M.D., Independence, Kans.

The rectal examination is of prime importance here. In many cases there is not the marked enlargement one would expect to find in obstruction. The examination should be done with care and fine discrimination. Too often our rectal examinations are too casual.

This man's long illness, following an oper-

ation for his relief, is the evidence of want of thoroughness in the rectal examination. I blush to recall the number of cases that have slipped out of my hands due to this first neglect or oversight on my part. The degree of enlargement can be determined by rectal examination. Almost the exact location of the trouble can be located by rectal examination. Why wait for the information of an exploratory incision? These patients are invariably aged and every moment of time is precious to them. It is imperative that every thing possible should be known before operation.

Next in value to the rectal examination is the additional evidence of the cystoscope. This will confirm the rectal findings. Both of these examinations will show the exact location and size of the growth, and the history will indicate its probable nature. As the case now stands, two years have elapsed since the operation, and the patient's condition has progressed steadily downhill.

For the hemorrhage I would give him an intramuscular injection of 5000 rat units of Progynon each day; and by mouth, every four hours, a 5-grain tablet of Larodon for the pain.

Discussion by G. J. Warnshuis, M.D., Detroit, Mich.

The diseases that need to be considered in the diagnosis of this case are: (1) Tuberculosis; (2) malignant neoplasm; (3) chronic prostatitis; (4) calculus; and (5) adenomyofibroma.

The differentiation is sometimes very much of a problem, even for those with special training and experience in urology. It is seldom that a preoperative diagnosis of malignant disease is made unless infiltration has plainly extended beyond the capsule of the gland. It may be suspected, as Dr. Pomeroy suggests, by the dense consistency of the prostate or its irregular contour, but assumption and opinions are not diagnoses. There must be at least a reasonable degree of probability that favors one explanation to the exclusion of others.

In this case, we ignore the "tentative" diagnosis of carcinoma by the pathologist, because a recurrence developing over a two-year period, even in a carcinoma of "low-grade" or slow progression, would have reached a stage where there would be little doubt about its true character. In fact, it would be most unusual for a patient to live longer than a year after a surgical attack on a carcinomatous prostate.

This does not, however, preclude the possibility of a carcinoma originating and developing in the gland subsequent to the original inflammatory process, just as we sometimes see a gumma take on a malignant change, or a peptic ulcer of long standing become the

site of a carcinoma. In spite of the grave character of this patient's symptoms, however—the considerable loss of weight and urinary distress—they do not favor a diagnosis of carcinoma in the face of the other physical findings. Prostatic cancer can cause extreme and almost unremitting pain, but the tumor mass is seldom especially tender, as it was in this case. Another point against the diagnosis of cancer is the small size of the mass and the lack of any noteworthy degree of fixation to the bony pelvis.

In tuberculosis, the epididymis and other urinary organs are usually involved. The patient's age rather militates against this interpretation, but a guinea pig inoculation would remove any uncertainty.

I saw a case not long ago with a similar history and corresponding physical findings, in which the x-rays showed a large calculus buried in the trigone.

**Discussion by G. M. Russell, M.D.,
Billings, Mont.**

This man probably has a carcinoma of the bladder, an extension from the prostatic lobe which was removed. The indications are entirely palliative. Injections of irradiated liquid paraffine would probably relieve him somewhat. There was certainly degeneration of tissue to account for blood clots forming.

**Discussion by Frank W. Porterfield, M.D.,
F.A.C.S., Waterloo, Ia.**

I cannot attempt a diagnosis in this case because of the absence of the following information, which would be necessary to make even a tentative diagnosis possible.

- 1.—A complete family history.
- 2.—Personal history prior to the commencement of the present attack, including occupation, environment, and habits.
- 3.—Findings after a complete chemical analysis of the blood, including Wassermann, Kahn and colloidal gold tests, and a microscopic examination of a smear of the blood.
- 4.—Temperature and range of the pulse; cardiac conditions; pulmonary, abdominal and splenic findings.
- 5.—Microscopic examinations of slides from the excised lobe, if these were made.

Lacking this information I cannot attempt a diagnosis; and if it were my case and, for any reason, these studies were impossible, I would immediately give the patient a safe and reliable hemostatic, which would immediately, or within a few hours, check all hemorrhage, after which I would irrigate the bladder at frequent periods with hot saline solution, which would eventually enable me to do a cystoscopy, examine the bladder surface, and have a chemical analysis of clear (at least not bloody) urine. One should think of a possible hemorrhage from faulty hemostasis at the seat of the prostatic ablation, with possible infection following.

tasis at the seat of the prostatic ablation, with possible infection following.

**Discussion by Guy S. Van Alstyne, M.D.,
Chicago**

It seems to me that there is not sufficient information given to enable one to do more than guess. However:

Why would a surgeon ("a good one") remove one lateral lobe of a prostate which was "not large," in a patient with "classical" symptoms of hypertrophy?

Why would a pathologist make a "tentative" diagnosis?

All of the symptoms this patient complained of two years postoperatively would not be at all unusual following a partial removal of a carcinomatous prostate. Dr. Pomeroy intimates, however, that his patient's trouble was something other than carcinoma. From the data given one can only speculate as to the cause: (1) A chronic prostatic abscess, involving the seminal vesicle; (2) some other neoplasm or chronic granuloma, breaking down and bleeding into the bladder; (3) a bladder diverticulum, with marked peridiverticulitis, perhaps containing a calculus or other foreign body.

I would have taken the patient's temperature; ordered a complete blood count; and ordered stereo-roentgenograms, both before and after instilling some radio-opaque substance into the bladder. If still unable to make a diagnosis, I would have asked a urologist to attempt cystoscopy in spite of the bleeding.

**Discussion by C. H. Kennedy, M.D.,
Fort Smith, Ark.**

We should know more about this patient's history and condition *before* his operation, in order to make an intelligent study of his present condition. If he actually had carcinoma at the time of the operation, he has it now.

With his present condition, it is evident there is severe irritation of the bladder wall, or that the bladder capacity is small, or that there is an overflow of residual urine. The cause of the present condition is hardly answerable without knowing some of the conditions existing from the beginning of the trouble; but assuming, as the prostate was small, that the patient was able to empty the bladder without the aid of a catheter, I certainly would not have subjected a man of that age to a radical suprapubic operation.

As to the care of the present condition, I would assume that it is probably carcinomatous, and if it is of two years' or more duration, nothing is going to be much more than palliative, but I would try sedation, internal medication, and if possible, use bladder irrigations and instillations. I would give a prescription as follows: Potassium citrate, 3

drams (12 Gm.); Lloyd's hydrangea, 4 drams (16 cc.); Lloyd's fragrant sumac, 5 drams (20 cc.); made up to four ounces with cinnamon water: Dose, a teaspoonful in a half-glass of water every three hours. This will be found to be very beneficial in many cases of cystitis.

I would irrigate the bladder, if possible, with a hot solution of boric acid, and follow it by instilling into the bladder about 2 or 3 drams (8 to 12 cc.) of 1:2500 Metaphen solution.

In this day and age we are prone to rely too much upon the laboratory for our diagnosis and to forget the uses of reliable and tried internal remedies. I have used the drugs mentioned, in connection with others, for the last fifteen years, and with most gratifying results.

**Discussion by Charles J. Drucek, M.D.,
F.A.C.S., Chicago, Ill.**

The incomplete prostatectomy performed in this case did not give this man any relief and the previously existing cystitis still distresses him. The chronic septicemia from this source may account for his loss of weight.

The "blood clots, which he expelled with agony" came from ulceration within the bladder. Blood from the kidney is intimately mixed with the urine in order to pass through the ureters, and blood from the urethra is easily expelled.

The "soft, exquisitely tender, but not greatly enlarged" prostate speaks for cystitis or abscess. A thorough examination under general, sacral, or local anesthesia, must be made, to locate or eliminate the presence of calculi or papilloma.

**Discussion by Geo. C. Croston, M.D.,
Sapulpa, Oklahoma**

Most of the symptoms that are necessary to make a diagnosis have been presented. However, one would prefer to have more clinical laboratory findings to correlate with the group of symptoms as given.

Under the circumstances it appears to me that one would be more or less compelled to arrive at a conclusion by weighing the importance of each symptom, and especially of all the symptoms as a group. To discuss the full importance of each separate symptom would probably require too much space and time. I will make an analysis of the symptom group as given and present it in differential and graphic form in the accompanying table.

After studying this differential table, the evidence all points toward cancer of the prostate or of the bladder. The surgeon having explored the bladder two years ago, and having found no evidence of cancer of the bladder at that time, it looks as if cancer of the prostate is elected.

The line of treatment of necessity would be:

- 1.—Hospitalization.
- 2.—Proper drainage.
 - A.—Suprapubic cystotomy, or
 - B.—Transurethral prostatectomy
- 3.—Irrigations
- 4.—Deep x-ray therapy
- 5.—Radium
- 6.—Iodine and Collodaurum
- 7.—Some form of non-specific protein therapy—Edwenil, Aolan, or Lactigen
- 8.—For the hematuria, calcium chloride, intravenously, or blood transfusion.

ANALYSIS OF SYMPTOMS AS PRESENTED

	Chronic Cystitis, All Kinds	Chronic Prostatitis	Tuberc. of Prostate	Simple Hypertrophy of Prostate	Cancer of Prostate	Cancer of Bladder
Cystitis (as a sympt.)	+	mild	— or +	+	+	+
Dysuria	+	+	+	+	+	+
Hematuria	+ or —	+	+	+	+	+
Loss in Wgt.	— or +	—	+	—	+	+
Anemia	— or +	—	+	+	+	+
Asthenia	—	—	+	—	+	+
Frequency, Day & Night	+	+	+	+	+	+
Dribbling	+	+	+	+	+	+ or —
Blood Clots	— or +	+	— or +	—	+	+
Tenderness	+	+	+	+	+	+
Soft Prost. (½)	+	—	—	—	—	+
Prost. not enlarged	+	—	—	—	+	—

+ = Yes: Symptom Present.

— = No: Symptom not always Present.

**Discussion by Gustavus M. Blech, M.D.,
Chicago**

Dr. Pomeroy gives the surgeon who operated upon this patient a certificate of proficiency; and the doubt about the nature of the tumor removed is no reflection upon the skill of the pathologist, as the best of them may be in doubt in borderline cases. I have seen syphilis mistaken for cancer, and vice versa. However, the clinical signs and symptoms suggest cancer, in a man of 67 years.

The Doctor did right not to use the cystoscope. Only a half-wit will insist on running the gamut of diagnostic procedures (even though they half kill the patient), merely for the sake of having a complete record. The examination record is inadequate only in lacking a report of an x-ray study of the bones for possible metastases, which are common in cancer of the prostate.

The softness of the gland does not rule out cancer, as the malignant process may be in the center of a lobe and resemble benign hypertrophy. The tenderness to touch speaks

against carcinoma, and the "blending with the seminal vesicles" suggests prostatovesiculitis, along with cystitis and pericystitis.

If cancer has existed for two years, there is no hurry about attempting radical surgery of the prostate; and it is doubtful if even electrocoagulation would do much good.

The first thing to do is to relieve the pain and dysuria. Under rectal anesthesia with Avertin (if cancer is present, local injections may spread the malignant cells), the bladder should be opened and semi-permanently drained. Irrigations with mild solutions may be indicated, and urinary antiseptics, by mouth, may be helpful. Once the bladder is exposed, the condition may be accurately estimated and proper treatment applied. A biopsy is without danger, if made with the cutting electric current (a high-frequency apparatus and a loop electrode), and does not cause postoperative pain. I have used electrosurgical procedures in weakened patients, whether the disease was benign or malignant, for years, because of the almost complete absence of shock.

This is not a complete solution of the problem, because medicine is an art and not a mathematical science, and individualization is its keynote, as regards both the patient and the physician or surgeon.

Solution by Dr. Pomeroy

I placed the patient on the examining table and, *without the use of a catheter*, filled his bladder with warm boric acid solution, using a half-ounce, blunt-tipped urethral syringe, gently but firmly forcing the solution through the sphincters and repeating the injections until the bladder was full. The capacity was only two ounces, but the fluid was expelled in a good-sized stream and with good force.

The information thus obtained was: (1) There was no organic obstruction in the urethra; (2) the capacity of the bladder was only two ounces; (3) the size of the urethra and the muscular force of the bladder were adequate.

Obviously the condition was not due to a recurrence of the prostatic obstruction, benign or malignant, but was *within the bladder*.

A flat roentgenogram showed a *vesical calculus* as large as a turkey's egg, with clearly marked laminations. A cystogram showed an irregularly outlined bladder, with cellulites and one diverticulum the size of a man's thumb.

I did a suprapubic cystotomy, under spinal anesthesia, removed a stone measuring $2\frac{1}{2} \times 1\frac{1}{2} \times 1\frac{1}{4}$ inches, inserted a retention catheter, and closed the bladder with a suprapubic cigarette drain outside. There were no signs of malignant disease in the bladder or prostate. The patient recovered from the operation. A small, tight, annular band of scar tissue at the bladder outlet will require treatment by electro-resection.

Following the operation, this patient is being treated by bladder instillations of solutions of Argyrol, Mercurochrome, boric acid, or similar medicaments; reduction of the colon bacilli in the lower bowel by enemas and implantations of *B. acidophilus*; a ketogenic diet; and autogenous vaccines.

Problem No. 8 (Surgical)

Presented by Dr. F. A. Northrup,
Pierre, So. Dak.

A MAN, 56 years old, consulted me on June 5, 1935, on account of a lump, the size of a split pea, on the inside of his left cheek, which had been there for six months or more but of late had been growing more rapidly than formerly. The little tumor was not painful but was slightly tender to pressure.

The patient had always been entirely well, so far as he knew, and had suffered no loss of weight or vitality. There were no bad teeth near the growth, and no swollen glands. His mother and two aunts died with cancer.

Requirements: What advice would you have given this man and what would you have done for him?

THE CONSTITUTION AND LIBERTY

If we really want universal planning and regimentation, neither the present Constitution nor a mere amendment or two will suffice for our new government. Indeed, much more than our Constitution would have to be altered. With it would go those personal liberties which have meant something to us for the past three centuries. If we do not wish a complete overturn of that sort, we may still be able to use the old Constitution.—JAMES TRUSLOW ADAMS, in *Scribner's Magazine*, through *Reader's Digest*, April, 1936.

THE RIGHT PATH

When humanity gets upon the right path, inward impulsion will progressively supersede outward coercion. All boundaries will disappear and all centralized power will be dissipated. The common good—industrial, political, social, spiritual—sanctioned by compelling moral sentiment, plus intelligence, will prevail universally.—LAWRENCE W. NEFF.

CLINICAL NOTES and ABSTRACTS

Diverticula of the Urinary Bladder*

THERE are many interesting things to be said about diverticula of the urinary bladder. They may be congenital or acquired but by far the most of them are acquired and are due to some obstructive lesion, usually an enlarged prostate. They are really herniations of the mucosa and submucosa, in spaces between the hypertrophied and trabeculated muscle bundles of the bladder. The most susceptible locations are usually the regions of the ureteral penetrations of the bladder walls, and that of the urachus; hence most of them occur at the base, dorsally, and at the vertex.

Symptoms:—The symptoms of urinary bladder diverticula are usually indistinguishable from those of prostatic obstruction; i.e., difficulties in urination, diminished force, nocturia, frequency, dysuria, etc. It is because of this that very often the surgeon who is unfamiliar with cystoscopy and cystograms finds himself in hot water, every now and then having a patient whose symptoms are not relieved by prostatectomy.

Diagnosis:—Most diverticula have been found, by many of us, when we were not looking for them; sometimes by observing their openings into the bladder during cystoscopic examinations for associated lesions, such as prostatic hypertrophy; at other times by taking cystograms in routine urologic studies. When once their openings have been observed, it is necessary to obtain cystograms to ascertain their extent, form, size, exact location, and other important data. The simplest radiographic medium is a 12-percent sodium iodide solution, sterilized in the autoclave. From 300 to 500 cc. are required, and this is introduced either by a catheter or a blunt syringe.

Antero-posterior and lateral-oblique exposures should be taken. The latter is not easy to obtain because of the density of the tissues through both thighs, and it is necessary to tilt the patient's pelvis at such an angle that the thighs do not superimpose. It is also usually necessary to increase the period of x-ray exposure, employing appropriate technic to avoid dermal injury.

Cystograms can be misleading. A bladder

full of medium may develop muscular spasms capable of forcing most of the fluid out of the vesicle and into and dilating the diverticulum. This may render it confusing to know which is bladder and which is diverticulum. However, this is readily ascertained by noting the position of the indwelling catheter.

Treatment:—Small diverticula, or even larger ones that have large openings and drain well, may be symptomless. Those with small openings often become infected, and may develop calculi, have foul smelling and irritating urine and pus, and sometimes become the seat of malignant disease.

The first principle of treatment is, of course, the removal of the urinary obstruction. With this accomplished, the symptomless type may need nothing more, as it is not unusual for this type then to gradually diminish and disappear.

Troublesome diverticula demand surgical intervention. It is a point of interest that operations for diverticula of the urinary bladder are of quite recent development. Czerny, in 1896, was probably the first surgeon of record to follow this procedure. He used the extra-vesical dissection and amputation method.

Hugh Young and his associates developed an intravesical technic in 1904. This is the method commonly followed today. The principles involved are: opening the bladder; everting the mucous membrane of the sac by suction or other means; dissection of the sac, with care to preserve the ureter in those cases involving this structure; and removal, followed by closure of the bladder walls. This is attended by a very low mortality and is a satisfactory procedure.

EDWARD S. POMEROY, M.D.

Salt Lake City, Utah.

Ergotamine Tartrate in Epilepsy*

THERE are certain cases of "idiopathic" epilepsy, usually occurring in women at or near the menstrual periods, which in many respects seem to resemble attacks of migraine, and which are not relieved by bromides or phenobarbital.

Since I have seen excellent results, in sev-

*Presented before the Salt Lake County Medical Society, March 23, 1936.

**Med. Times*, Feb., 1936.

eral cases of migraine, from the administration of ergotamine tartrate (Gynergen), I decided to try it, empirically, in two cases of "idiopathic" epilepsy occurring at the catamenial period.

Each patient was instructed to take two or three tablets of Gynergen (each containing 1.0 mg. of the drug), by mouth, daily, beginning one or two days previous to the expected time of the convulsions and continuing until the flow was well established. The dose may be reduced, experimentally, to one or two tablets a day, and thus continued if it works satisfactorily. If the patient had a severe headache at the time a dose was due, it was given intramuscularly, using 0.5 to 1.0 cc. (0.25 to 0.5 mg.) of the ampule solution.

In both of these cases the results were so satisfactory as to warrant further experiments along this line (on an empiric basis, so far) in cases of epilepsy that do not respond to other measures.

I. J. KARLSBERG, B.S., M.D.

Fall River, Mass.

Teaching the Tuberculous Patient*

WHAT should the tuberculous patient be taught? His curriculum might be divided into three main groups: (1) A way of life; (2) an understanding of tuberculosis, particularly his tuberculosis; and (3) knowledge of how to protect others.

1.—The essence of the cure (for most cases at least) consists in learning a new way of life. While the tubercle bacillus is the sole, direct way of the disease, environment (in its broad sense) tips the scale in favor of, or against, the infected person. Of the many people who are invaded by *bacillus tuberculosis*, only those few whose mode of life or environment or attitudes (again in a broad sense) violate nature's demands, are most likely to develop the disease. And if, after arrest of the disease has been achieved, the patient returns to his old ways and attitudes, he is, almost surely, doomed to relapse. It is essential, therefore, to make a diagnosis of the patient's habits of living and thought pattern. Mental attitude perhaps comes first, for hope, cheerfulness and confidence are the patient's staunchest allies, and depression of spirits his cruellest enemy.

However, cheerfulness that is put on like a top-coat or like a cosmetic will not outlast the grueling experience of the cure, with its many ups and downs. Unless well grounded in a sound philosophy of life, hope is likely to give way to deeper despair. Self-deception is not called for. Indeed for most patients the only tenable policy is to face frankly the fact that an unwelcome guest has

established headquarters in his lungs and that for the rest of his life he must effect a truce with the invader, the terms of which call upon the patient to surrender cherished desires for a guarantee of bacterial peace.

2.—Long ago Dr. Lawrason Brown instituted his famous question box for patients at Trudeau Sanatorium. This was acknowledgment of the conviction that patients have a right to know the answers to their personal questions. By skillful guidance and deft answers he managed, in these group meetings, to teach his patients what he believed they should know, in well-rounded form. Today every sanatorium follows that precedent, in principle at least.

Understanding of the basic biologic principles underlying tuberculosis is necessary if the patient is to be motivated in the right direction or to change his attitudes. Our job as teachers and trainers is to interpret the highly technical knowledge that we have, in terms which people of ordinary intelligence can grasp. The basic facts of tuberculosis are simple and a child can understand them, if the teacher is competent.

There is, perhaps, a basic alphabet which all patients should master. To catalogue here the several facts and concepts which the patient should learn, is not necessary, for these are contained in several books and treatises written for the patient. But we might profitably resurrect a few "pointers" given us by Dr. Brown in his original essay. For example:

Carefully explain to the patient the nature of a fresh tubercle and show him how exertion may undo its protective tendencies. Then the patient is persuaded to "elect" bed rest. Since his choice is of his own volition, based on intelligence, the act becomes his own and he may be depended upon not to break training.

Smatterings of knowledge are worse than none—take time to lay a sound foundation.

Do not discuss the patient's physical findings nor his complications with him, for that leads to introspection, but encourage objective study.

In teaching the patient to recognize symptoms, let it be with the understanding that symptoms are to be regarded as red and green signal lights and not something to worry about.

The educational vehicles at the disposal of the sanatorium are abundant: the printed word, spoken word, the library, motion pictures and stereopticon slides. Surpassing all these methods is the personal contact of the doctor with the patient. He best knows the time and place for imparting this or that particular bit of information. By far the most potent educational force is actual practice. We learn to do by doing. To what

*Tuberculosis Abstracts, Mar., 1936.

extent can the practice of the sanatorium be carried back to the home, factory and shop? What is the use of achieving, in the sanatorium, a technical perfection which cannot later be duplicated in principle, in the home?

3.—The third broad grouping of the patient's training has to do with the prevention of the spread of his disease. Furnishing a patient with a sputum cup and installing an incinerator may be the alpha of prophylaxis, but it is not the omega. He should learn, of course, why such scrupulous attention is paid to sputum disposal. But he should learn also the numerous ways in which tubercle bacilli migrate from one person to another. He should develop automatic habits of safety—something akin to the surgeon's "aseptic conscience." To learn by rote that kissing, spitting, the use of common eating utensils, etc., are *verboten*, is well, but not enough.

It is better to teach simply and clearly the general biology of the disease, the manner in which the germ gets from one person to another, and how it does its deadly work. Give the average person an understanding background and a few specific examples, and he will, himself, regulate his conduct to the best interests of others and his own good.

From an understanding of his own tuberculosis and the desire to avoid infecting his loved ones and friends, is but a short step to the cultivation of an interest in the larger problem of combating the pandemic, tuberculosis. Every patient who leaves a sanatorium should have a good grasp of the broad epidemiologic picture of tuberculosis. The graduate of a sanatorium should be a crusader striking his blows in season and out of season. In him burns an everlasting fire. There are thousands like him. Under the cumulative effect of such force, the old enemy is bound sooner or later to yield.

H. E. KLEINSCHMIDT, M. D.

New York City.

Allergy*

THE histories of allergic patients indicate that this condition is an important factor in the diagnosis and treatment of many obscure and troublesome symptoms.

Among the sea foods, tuna fish is by far the most common cause of allergic reactions (41.6 percent of patients tested) and anchovies come next with 30.6 percent. Among the vegetables, mushrooms, asparagus and tomatoes head the list, in that order; among meats, chicken and mutton; among pollens the ragweeds are far ahead, with sunflowers next; among epidermals and miscellaneous proteins, chicken, duck, and goose feathers (in that order), house-dust, orris root, and

silk (also in order) are important. Milk, eggs, and chocolate, which, have a bad reputation, are relatively less frequent allergens than are many other substances.

A few clinical notes will show the value of studying the sensitiveness of patients with baffling conditions.

A woman had severe sneezing fits whenever she was dressed for the street in cold weather. She was sensitive to fox fur, and the sneezing stopped when she gave away her fox neckpiece.

A child had inexplicable and almost continuous fever and was kept in bed for a whole year, but the fever still persisted. Tests showed sensitiveness to feathers, and when her feather pillow was removed, the fever disappeared.

A boy of fifteen years had almost continuous and violent headache, not due to eye trouble. His physical examination was negative. He was found sensitive to potatoes, and when he does not eat them he has no headache.

A man had asthmatic attacks whenever he was living at home, no matter in what part of the country he lived (he tried several), but was free from them when away. He was found sensitive to cat hair, and a fine Angora cat was an important member of his family.

A. A. JANSON, M.D.

Evanston, Ill.

The Advertisements are NEWS! Read and use them.

Chronic Carbon Monoxide Poisoning

ACUTE carbon monoxide poisoning has been much discussed, but chronic poisoning, which is reasonably common, has been neglected and physicians have confused it with other conditions, which it resembles in some of its symptoms, which are: headache, dizziness, nervousness, nerve and muscle pains, shortness of breath, digestive disturbances, palpitation, weakness, restlessness, and depression. Some patients show symptoms of gastric ulcer or typical angina pectoris, but all of the symptoms clear up promptly upon removal from exposure to carbon monoxide, which generally comes from defective gas heaters.

Whenever a physician sees a patient presenting these symptoms, it would be well for him to investigate the domestic arrangements of the patient carefully, to find out if there is any chance that he or she is being chronically poisoned with this dangerous gas, and see that unsatisfactory conditions are promptly corrected.—Dr. HARVEY BECK, in *Science News Letter*, June 20, 1936.

*Ill. M. J., Apr., 1936.

Cholangiography*

CHOLECYSTOGRAPHY, by means of dyes given by mouth or injected intravenously, has added much to our knowledge of the living gallbladder and to the diagnosis of its



Courtesy, Gen. Elec. X-Ray Corp.

Fig. 1.—Cholangiograph made several days after a choledochotomy, in the presence of severe pericholecystitis, with removal of several small stones. Several stones of moderate size can be seen in the common bile duct and in the bile vessels of the liver. At a second operation three of these stones were removed, and the rest were passed into the duodenum.

diseases, but hitherto it has rarely been possible to visualize the biliary ducts by this means. Such visualization would be highly desirable in determining the indications for cholecystostomy or cholecystectomy, and in giving the surgeon some idea of what he would find in attacking these organs.

With this idea in mind, Drs. Zabala and Bengolea, of Buenos Aires, Argentina, have for several years been utilizing postoperative biliary fistulas for the study of the biliary tree by means of cholangiography, which they have developed. At first they used lipiodol as a contrast medium, but more recently they have found something better suited to the purpose.

The pictures which accompany this note were obtained by injecting from 40 to 60 cc. of Thorotrast, either pure or in 40- to 50-percent solution, into the biliary fistulas, and making the roentgenograms within an hour after the beginning of the injection.

The day is not far distant, thanks to these studies, when it will be possible to establish



Courtesy, Gen. Elec. X-Ray Corp.

Fig. 2.—Cholangiograph made after a typical cholecystostomy with removal of two moderately large, oval stones; (1) shows the greatly dilated common duct containing several stones (4), which had been overlooked; (2) the gallbladder; (3) biliary vessels of the left lobe of the liver. The stones were removed at a second operation.



Courtesy, Gen. Elec. X-Ray Corp.

Fig. 3.—Cholangiograph made after a cholecystostomy with removal of several stones; (1) one shows the dilated common duct, with a stone (3) at its outlet; gallbladder, reduced in size, at (2). The stone was removed through a duodenotomy opening.

with certainty the indications for and the probable safety of operations on the liver and biliary apparatus.

J. A. SARALEGUI, M.D.

Buenos Aires, Argentina.

*Revista de Radiología y Fisioterapia, May-June, 1935.

Ideal Marriage Through Birth Control*

THE ideal family should include as many children as can be given an adequate birth-right of mental and physical health; an environment which will, not only create character, but provide for that degree of happiness in youth which is the natural right of every child; and a financial standard in the home which will give adequate advantages of education, health, and equipment to meet the demands of life. Every normal husband and wife knows instinctively that there is no greater joy in life than to have children who are well-born without disaster to the mother, and to whom they may give wholesome and intelligent care.

But the mere statement of the ideal presents the problem which every marriage faces—that there comes a time, soon or late, when this ideal is broken if any more children are born into the home. This ideal is first destroyed when the health and welfare of the mother may be imperiled by the birth of another child. For, no matter what claims naturalism may make, the spiritual interpretation of life proclaims that a woman's prime function is not as a breeder of children, but as a spiritual personality whose glory and privilege is to bear children only when she may do so without permanent harm to her body or personality.

It is also true that the ideal demands that there shall be a time when, for the sake of the children already born, there shall be no more children in that family. It is obvious that this is true, for it is simple common sense to state that there is a limit to the number of children that can be given a true birthright of health, sustenance, and equipment for the future. And children who are already born must be cared for, and sustained, before other children are given birth.

There are many ways in which the affection of a husband and wife for each other may be expressed, and they all lead up to the great culmination of love. In order to have that reach its true joy and significance, it must be interpreted as a spiritual, as well as a bodily, experience, and it must be the supreme expression, on the part of both husband and wife, of love in terms of the husband's thoughtfulness of her, fused with the sense of beauty and with the consciousness that the wife is not only a woman, but the one who is loved better than life itself. In that spirit, and with that ideal, the marriage union becomes as great a spiritual and esthetic experience as any other act of consecration to an ideal, and grants a meaning and joy and a significance to married love which is supreme, because it is based upon

the highest value that humanity knows, that of a lasting love of one man for one woman.

This leads us, then, to the belief that the control of the birth of children, for the sake of the mother, the children already born, and the unborn child, should not be dependent upon continence, for that as a permanent control is both undesirable and impossible in the highest interpretation of love. Therefore, some form of birth control which is scientific may be used for medical, eugenic, and moral purposes. And here, as in every area of human activity, the moral and spiritual determination lies not in the act and method, but in the spirit and purpose for which it is used. Just as the act of procreation itself may be used for base purposes, so may the act of birth control; but just as the act of procreation may be used in the highest spiritual interpretation of life, so the use of birth control may have high spiritual and moral connotations, depending entirely upon the mental and spiritual attitude of those who use that method. The scientific knowledge of birth control has introduced a new power into the world, and, like all power, it may be used for evil, as well as for good.

The main fact which must be borne in mind is that there is now laid before mankind a new, great power which may be used in the creation of healthier, happier, more richly endowed, and so more optimistic, generations of child life; of homes in which children may be given an adequate birth-right and the fullest portions of love and care; of marriages in which the specter of pregnancies which should not occur will be prevented, while the full tides of the rich and inexpressibly beautiful experiences of married love may continue to enrich and beautify marriage; of a social order which may be created without war and economic disaster, because there is no overpopulation.

REV. RUSSELL J. CLINCHY, D.D.

Washington, D. C.

Urethral Chancere

DEEP urethral chancere is much more frequent than is generally supposed, and is sometimes overlooked. These chanceres may account for some of the cases of syphilis of unknown entry.

I have a record of 21 cases where the chancere was located an inch or more within the urethral canal. All these patients came to me for treatment of what they supposed was acute gonorrhea. All gave a history of a discharge for not more than ten days. None showed the usual symptom—a red, inflamed and swollen meatus—which is always present in acute gonorrhea. All were gonococcus-free, using Gram's test. Using a dilator, a gray

**Christian Leader*, Feb. 22, 1936.

patch was observed an inch or more within the urethral canal, specimens from which, examined with a dark-field illuminator, all contained spirochetes. All had negative blood Wassermann reactions.

Within the past two years, four cases of syphilis in the secondary stage came to me for treatment. All had 4-plus Wassermann reactions; all denied having a sore; none showed evidence of recent chancre; three admitted having a urethral discharge within three months; in two cases the urethroscope showed a bright spot that may have been the location of a chancre.

W. B. DOVE, M.D.

Macon, Ga.

[This reminder of the frequency and importance of hidden chancres merits the thoughtful consideration of every active clinician. Every patient with a urethral discharge is entitled to have that discharge examined microscopically, and if no gonococci are found, should be examined for chancre, as Dr. Dove has done. Every patient who gives a history of a "dose of clap that cleared up in ten days" should be immediately and exhaustively examined for signs of syphilis. Only by careful work like this can physicians deserve the confidence of their patients.—Ed.]

Pressor and Psychologic Effects of Benzedrine Sulphate*

TESTS were made on a series of 25 patients, each of whom was given two or more doses of benzedrine sulphate. The drug was administered orally in 10 mg. tablets, the dose ranging from 10 to 80 mg. per day. Normal blood pressures and those obtained following the administration of the drug were recorded and the mental state of each patient was given careful consideration. It was found that 20 mg. was necessary to produce any appreciable change, and in 22 of the patients, 30 mg. was required. Of the 25 in the group, only 2 showed no reaction to these doses.

Although benzedrine has a distinct effect on the vegetative nervous system, many of its reactions seem to differ appreciably from those of epinephrin. Pallor, blushing, and change in the size of pupil were not observed and there was recorded no apparent symptomatic change in gastro-intestinal motility, perspiration, or genito-urinary function. Blood-sugar readings showed no more than normal fluctuation, and respiration was unaffected. Some loss of appetite was reported, and in 25 percent of the cases dryness of the mouth was experienced.

It was found that an interval of from

twenty-five minutes to two hours was required for the drug to produce an initial effect, maximum increase appearing about one hour after the onset. Two to five hours later the pressure gradually returned to normal and in no cases did the effect last more than twenty-four hours. Although the blood pressure rise was proportional to the amount of the drug administered, it was noticed that those patients with initially low and variable pressures reacted more than those with initially higher and less fluctuating pressures. The rise was chiefly in the systolic blood pressure, with accompanying increase in pulse pressure. In most cases there was an increase in pulse rate which lasted longer than the accompanying blood pressure rise.

In certain of the cases, the authors obtained marked psychologic effect without accompanying changes in blood pressure. The reverse was also observed. The insomnia-producing effects reported by Prinzmetal and Bloomberg, in their study of the use of benzedrine in narcolepsy, were confirmed.

Benzedrine, although resembling epinephrin, did not produce the anxiety caused by that drug. The mental effects were profound and dramatic. One of the most noticeable was in increase in talkativeness, especially apparent with the depressives, some of whom spoke spontaneously for the first time since hospitalization. There was also improvement in the patients' physical activity.

Of greater interest was a change in mood produced in almost all cases. There was no instance recorded of anxiety or greater depression—the charge generally tending towards euphoria. In normals and depressives alike, a feeling of confidence, elation and well-being was unmistakable. They seemed happier, brighter, more energetic and free from care or worry. In the one case where reactions of cold, shivering and weakness were experienced, there was also a noticeable sense of elation and unconcern.

We believe that benzedrine has definite therapeutic possibilities, but until more is known about its various properties, it should be administered with due caution.

DRS. S. A. PEOPLES AND E. H. GUTTMANN.
London, Eng.

The Adrenal Cortex and Infections*

IN Addison's disease, the lessened resistance to infection is as well known as is the general prostration. The deleterious effect of infection is believed to act upon and through the adrenal cortex, which is so essential to life. In a case of Addison's disease, in spite of peroral cortical hormone therapy, an exacerbation of the Addisonian syndrome be-

**Lancet* (London), May 16, 1936.

**Klin. Wchnschr.*, Sept. 7, 1935.

comes evident immediately upon the development of an infection.

When an infection occurs in a patient with Addison's disease, the objective phenomena of cortico-adrenal deficiency are accentuated. This, of course, is not surprising, since the adrenals are actually being harried by two infections, for the primary lesion is usually tuberculosis. Laboratory tests will show low blood sugar, reduction of the cholesterol in the blood-serum, oliguria, fall in the absolute N- or the NaCl values in the urine, reduction of the basal metabolism, creatinuria, severe fall in blood-pressure, anemia, inverse blood-pressure reaction after adrenalin, and deficient adrenin (in the blood). It has been demonstrated that the whole syndrome can be allayed by energetic parenteral cortin therapy, which, during the acute Addisonian attack, is lifesaving and just as spectacular as the action of insulin in diabetic coma.

This further confirms the well-known fact that serious infections frequently lead to regressive and destructive changes in the adrenals. Special importance attaches to the fact that the intensive changes in the adrenal cortex brought about by infective-toxic lesions lead to characteristic symptoms following infectious diseases, clearly due to hypoadrenia.

Experimental animals that receive diphtheria toxin perish without exception. There are characteristic changes in the carbohydrate metabolism, and severe hemorrhages and necrosis in the adrenal cortex. Treatment with ascorbic acid and cortico-adrenal extract inhibits these histologic changes, and the animals survive.

In diphtheria-toxin-poisoned animals, in which there were simultaneous lesions of the reticulo-endothelial system, combined ascorbic acid and adrenal cortex therapy apparently is not a specific, but a non-specific therapy.

From this investigation new possibilities emerge in the treatment of infectious diseases.

S. THADDEA, M.D.

Berlin, Germany.

Conservative Treatment of Abortion

IN induced abortions, which cause a large proportion of the maternal mortality, conservative treatment must be applied to control hemorrhage and combat infection. Surgical intervention is dangerous. Oxytocic drugs will almost always empty the uterus; while postural drainage will localize the infection and blood transfusions will check it, as well as restore the blood volume.—DRS. J. R. REINBERGER and P. B. RUSSELL, JR., Memphis, Tenn.

Diagnosis of Obscure Fever*

WITH the aid of associates, the records of 90 cases of fever of unexplained origin, occurring in private practice and in the wards of the Johns Hopkins Hospital, were ferreted out. These cases are not regarded as units of statistical calculation, since their number is too small, but rather as illustrations of the peculiar features of each case.

For convenience the cases were divided into two groups, the first comprising those with low-grade fever of from 100° to 101° F., with slight symptoms; the second consisting of cases with higher fever and symptoms which usually incapacitated the patient and confined him to bed.

Patients of the first group complain of weakness and lassitude, of lack of energy and endurance. The zest of life is gone; they whip themselves up to undertake tasks formerly done with ease; they are exhausted. Some have headaches, others digestive symptoms or palpitation of the heart. All are ill at ease, apprehensive and depressed, mentally and physically. Many have consulted successive physicians and have undergone various surgical procedures, yet they feel no better and the fever persists. Such cases finally group themselves into these classes.

1.—In a certain number (about 40 percent), characteristic signs and symptoms develop which permit us, at last, to make an accurate diagnosis.

2.—In another group (about 50 percent), the symptoms slowly disappear, the fever subsides and the patients get well, although we are never able to arrive at a well-supported diagnosis.

3.—In about 10 percent, the symptoms and the fever persist for many years and, in spite of the most careful observation and painstaking examination, no satisfactory diagnosis is ever reached.

In the series studied an accurate diagnosis was finally made upon 10 patients as follows:

Malta fever	3 cases
Pulmonary tuberculosis	2 cases
Hypernephroma	2 cases
Hodgkin's disease	1 case
Tertiary syphilis	1 case
Ureteral stricture	1 case

In 6 other cases a presumptive diagnosis was made as follows:

Tuberculosis—pulmonary.
Tuberculosis—mesenteric glands.
Tuberculosis—perirectal abscess.
Rheumatic fever.
Malta fever.
Multiple myeloma.

DRS. LOUIS HAMMAN and
C. W. WAINWRIGHT.

Baltimore, Md.

*Bul. Johns Hopkins Hosp., Feb., 1936.

DIAGNOSTIC POINTERS

Don't Overlook Fear

HOW often we disregard the patient and treat the disease! A close relationship between the doctor and patient exists only when the patient is not fearful or apprehensive. The patient may welcome reassurance and a discussion of his particular problem.

A sick man wonders why he is ill; he harbors grave fears and apprehensions. Recognize this fear and allay it by an adequate discussion of the problem. Fit your discussion to the man and you will be rewarded by his confidence and cooperation.—DR. JOHN PALMER HILTON, of Denver, in *Med. Economics*, Feb., 1936.

Hypogenitalism

HYPOGENITALISM is more common than is generally supposed, and the anterior pituitary is most frequently deficient, calling for early consideration. If not corrected early, these disturbances generally persist throughout life.—DR. CHARLES H. LAWRENCE, of Boston, before Am. Coll. of Physicians.

Stomach Symptoms in Apoplexy

IT is now well known that coronary disease frequently causes gastric symptoms, and death from this cause is attributed to "acute indigestion."

Minor cerebral hemorrhages (mild "strokes") may cause the same sort of stomach symptoms; and when a person of over 45 years complains of sudden "dyspepsia," accompanied by depression, apathy, loss of memory, and other personality changes, the case should be carefully studied for signs of cerebral damage.—DR. WALTER C. ALVAREZ, in *A. J. Digest. Dis. & Nut.*

Allergic Synovitis

THE possibility of food allergy should be considered in every case of idiopathic synovitis or intermittent hydrarthrosis. A personal or family history of the common allergic diseases—asthma, hay fever, urticaria, angioneurotic edema, eczema, or migraine—increases the probability that some form of sensitization is present.—DRS. PHILIP LEWIN and S. J. TAUB, in *J. A. M. A.*, June 20, 1936.

Meningitis in Infants

IF a young child has obscure gastrointestinal symptoms with irregular fever; shows irritability, somnolence, tenseness or bulging of the fontanel or continual crying; and its pulse and respiration are increased out of proportion to the temperature, suspect meningitis and make a spinal puncture for direct diagnosis.—DR. J. M. RAVID, in *A. J. Dis. Child.*, May, 1935.

Prognosis in Gastric Cancer

THE prospect of cure of carcinoma of the stomach by partial gastrectomy, in cases where there has been no metastasis, is about 50 percent for three-year cures. In 184 cases where three-fourths or more of the stomach was removed, 18 percent of the patients were apparently well after five years or more.—DR. WALTMAN WALTERS, in *Journ.-Lancet*, Nov., 1935.

Aortic Stenosis

DIZZINESS is a symptom observed in aortic stenosis due to a temporary cerebral anemia caused by diminished outflow from the left ventricle, because of the stenosis.—DR. M. LEONARD GOTTLIEB, in *Med. Rec.*, Dec. 4, 1935.

Vertigo

THERE is a vertigo that is often seen after attacks of "grippe" and in various gastrointestinal disorders. The attacks of dizziness with nausea noted after "grippe" usually run for two to three weeks and are explained on a toxic basis. The attacks of vertigo with gastro-intestinal disturbances are explained on a reflex basis, there being peripheral involvement of the vagus nerve which, in turn, involves the triangular nucleus, and this, in turn, the vestibular nucleus.—JAS. ASA SHIELD, M.D., Richmond, Va., in *South. Med. & Surg.*, Feb., 1936.

Diagnosis of Congenital Syphilis

THE most important evidence of congenital syphilis is the roentgenologic demonstration of characteristic bone lesions.—DRS. A. H. PARMELEE and L. J. HALPERN, Chicago.

NEW BOOKS

Any book reviewed in these columns will be procured for our readers if the order, addressed to CLINICAL MEDICINE AND SURGERY, Medical & Dental Arts Bldg., Waukegan, Ill., is accompanied by a check for the published price of the book.

To be without books of your own is the abyss of penury.—RUSKIN.

Rhine: Telepathy and Clairvoyance

EXTRA-SENSORY PERCEPTION. By J. B. Rhine, Ph.D., Associate Professor of Psychology, Duke University; with a Foreword by Prof. William McDougall, F.R.S., D.Sc., M.B., and an Introduction by Walter Franklin Prince, Ph.D., Research Officer, B.S.P.R. Boston: Bruce Humphries, Inc. 1935. Price, \$2.50.

For years the psychic researchers have been carrying on carefully controlled experiments in regard to the supernormal (there can be nothing "supernatural" in a law-governed universe) or extra-sensory faculties in man, and the orthodox scientists have been sneering at and making light of their published results, which, in a wholly unscientific attitude, they have made no serious attempts to investigate or understand, even though the students of the supernormal have invited, and even prayed them to do so.

That prayer is now being answered, on a large scale and under unimpeachable auspices, for the first time, and this book is the first fruits of a series of factual studies of those physical faculties, possessed by all people in some degree and by some people to a remarkable degree, which are generally called telepathy or mind-reading and clairvoyance, and which are included, in scientific nomenclature, in the field of parapsychology or cryptesthesia.

Dr. Rhine has carried out more than 100,000 tests under conditions so strict that fraud, incompetence and self-deception are definitely ruled out, and yet so simple and direct that any high-school graduate can understand and check them. The results are of such a nature that they can be reduced to the charts and graphs, which are so dear to the hearts of the materialists, because the faculties investigated are not in any sense spiritual, but are relatively undeveloped, physical perceptual powers which are actually or potentially present in all human beings.

The results of these tests, as presented in this volume, are so impressive that they will be astounding to any open-minded person who is unfamiliar with matters of this sort. The mathematically figured odds against the possibility of chance as a factor in these results run, in some cases, to figures greater than 100,000,000 to one.

The details of all of the tests reported are set forth with meticulous accuracy and detail, so that every feature of them may be rigidly checked and evaluated, and so as to form a basis for studies of the relations between these extra-sensory faculties and the other factors in psychologic studies. No point is concealed or hidden in ambiguous verbiage.

No person who is genuinely interested in the progress of research in the field of human psychology can afford to deny himself the excitement and enlargement of mental vision which will come from a study of this truly epoch-making book, which was mentioned editorially in this Journal in the June issue, page 267.

Diseases of the Respiratory Tract

DISEASES OF THE RESPIRATORY TRACT. Eighth Annual Graduate Fortnight of The New York Academy of Medicine. By 21 Contributors. Illustrated. Philadelphia and London: W. B. Saunders Company. 1936. Price, \$5.50.

For several years past the New York Academy of Medicine has adopted the policy of extending its educational opportunities to the outside profession, and even to the public. One of the methods of attaining this object is by devoting a fortnight each year to lectures and demonstrations by well-known authorities, with coordinated clinics in the hospitals of New York City. For this symposium a definite subject is selected, which is presented from as many angles as possible.

In this eighth series of the Annual Graduate Fortnight of the Academy the subject selected for presentation is Diseases of the Respiratory Tract. There are 21 contributors, most of them being well-known authorities on the subject, including Drs. George Blumer, Yandell Henderson, Chevalier Jackson, Howard Lilienthal, Eugene Pool and David Riesman.

The medical and surgical aspects of diseases of the respiratory tract are set forth and all recent advances in the etiology, diagnosis and treatment are described with lucidity and brevity. There are four contributors on the subject of tuberculosis. Other subjects well presented are bronchiectasis,

pneumonia, empyema, abscess and gangrene of the lung, pulmonary thrombosis, and lung carcinoma.

Seeing that diseases of the respiratory tract account for more illness and deaths than any other class of diseases, except those of the heart and blood vessels, the importance of up-to-date information concerning them to the medical practitioner, surgeon and medical student will be at once apparent.

Although in no sense a textbook, this volume is authoritative and practical; it is worthy of a place in every working medical library.

Ferguson: Hydrochloric Acid Therapy

FACTS AND PHAGOCYTES. The Story of the Development of Hydrochloric Acid Therapy. By Burr Ferguson, M.D., Fellow A.M.A., A. A. Surgeon U.S.P.H.S. 1920-1926 (Foreign Branch), Lt. Col. M.C.A.E.F., etc. 1936. Youngstown, Ohio: Medical Success Press. Price, \$5.00.

Those who are familiar with the writings of Dr. Ferguson, will find this book just what they would have expected—a breezy, colloquial, autobiographic story of how he arrived at two important decisions: First, that Metchnikoff was right when he said, "The one constant element in immunity, whether innate or acquired, is phagocytosis"; and, second, that hydrochloric acid, when injected intravenously, is the best agent for increasing the numbers and phagocytic activity of the leukocytes, and, when applied locally, is "nature's supreme antiseptic."

In this volume, all or most of the orthodox tenets for the production of a medical book are laid aside. The author is a clinician, who has little knowledge of laboratory work, and who, if a patient gets better under his treatment, is not much interested in why or how that happens, feeling that the clinical results are, for the physician, a sufficient demonstration of a drug's value. Remembering that most of the remedies now in wide use (such, for instance, as cinchona) were first used empirically, and later established by scientific research, it is a compliment to number Dr. Ferguson with the pioneering empiricists. He *proves* in these pages that hydrochloric acid works, and leaves the discovery of its *modus operandi* to others. Throughout, he is the ardent follower, disciple, and propagandist of Metchnikoff.

There are few charts in this volume (and those simple ones); no graphs; and only a few home-made photographs, impressively illustrating some of the remarkable case histories. The text is lucid and graphic enough to carry its message with few adventitious aids. In fact, it does not pretend to be a textbook at all, but just what the subtitle implies, "The Story of Hydrochloric Acid Therapy,"—and a fascinating story at that!

This is not a book to be placed on the shelf for reference, but one to be read, like a book

of adventure—which, indeed, it is. It is safe to say that those who are converted by Dr. Ferguson's preaching, and will carry out the suggestions he makes, will be more successful clinicians as a result.

McBride: Disability Evaluation

DISABILITY EVALUATION. Principles of Treatment of Compensable Injuries. By Earl D. McBride, B.S., M.D., F.A.C.S., Assistant Professor in Orthopedic Surgery, University of Oklahoma School of Medicine; Attending Orthopedic Surgeon to St. Anthony's Hospital; etc. Three Hundred and Seventy-Four Illustrations. Philadelphia: J. B. Lippincott Company. 1936. Price, \$8.00.

The purpose of this volume is to interpret the physiologic and mechanical alterations arising out of injury to the motor structures of the human body, and to reasonably appraise and evaluate the extent of functional loss as it relates to the economic incapacity of the injured.

Society, through the industrial court, asks for the extent of disability in terms of percentage of loss of use of the body. Guessing casts reflection on the integrity and qualification of the physician. Wide difference of medical opinions breeds suspicion of prejudice. If an opinion is to be expressed it must be based upon the same scientific reasoning as is used in arriving at any medical diagnosis.

This book stresses the effect of physiologic and mechanical alterations and gives a method of measuring the extent of disability in a given case. It will be a great help to all physicians doing industrial work.

Mantegazza: Physiology of Love

PHYSIOLOGY OF LOVE. By Paolo Mantegazza. Translated from the Italian by Herbert Alexander. New York: Eugenics Publishing Company. 1936. Price, \$3.00.

In spite of some lurid advertising in connection with it, this work cannot be classed as erotica, and scarcely in the narrowly technical field of erotology, though it is much nearer the latter. There is nothing in it that is provocative or salacious, but all is written in the spirit of high, emotional poetry, by one who looks upon the relations between the sexes with the eyes of the spirit and from the high viewpoint of wide experience and deep understanding and sympathy. The title, "Psychology of Love," would be more accurate than the one given it. Important as it is to understand the physical, sensual organism of love, it is equally essential to be familiar with the esthetic, the emotional, and the mental attributes of passion. To know one without the other is to know but half the truth.

From the "affinity" of the chemist, this gifted author traces the development of attraction through the vegetable and animal kingdoms to its highest manifestation in man, with a sure and logical touch and in beautiful

and uplifting words, dealing with courtship, modesty, virginity, chastity, the part played by all the senses in the expression of love, and many other matters of which most people know far too little.

The bookwork—paper, typography, and binding—is satisfying and appropriate.

A study of this book should be a part of the education of all lovers, before and after marriage, and such study would greatly decrease the sum of human unhappiness. Every physician can read it with profit and recommend it with the certainty that it will do good.

Fulton and Keller: Babinski's Sign

THE SIGN OF BABINSKI. A Study of the Evolution of Cortical Dominance in Primates. By John F. Fulton, Sterling Professor of Physiology in the Yale University School of Medicine; and Allen D. Keller, Professor of Physiology and Pharmacology in the School of Medicine, University of Alabama. Springfield and Baltimore: Charles C Thomas. 1932. Price, \$5.00.

This monograph, which presents the results of an extraordinary piece of physiologic research, considers the nature and clinical significance of the sign of Babinski and other pathologic reflexes of the lower extremities in higher primates; the larger problem of the evolutionary background of the human nervous system; the nature of spinal "shock" and the reflex activity of the spinal animal; and the technical problems involved in the use of monkeys and the higher apes for experimental studies on the nervous system, such as anesthesia, surgical technic, electrosurgical methods, surgical after-care, etc. It will be invaluable to researchers in this and similar fields, and highly interesting to all who are eager to understand first principles.

Cabot and Dicks: The Art of Ministering to the Sick

THE ART OF MINISTERING TO THE SICK. By Richard C. Cabot, M.D., and Russell L. Dicks, B.D. New York: The Macmillan Company. 1936. Price, \$3.00.

This book has been written from the humanitarian rather than from the medical standpoint. It deals with the ministrations of both physical and spiritual comfort to the sick, with particular emphasis on the spiritual side. It is intended for all who care for the sick—doctors, nurses and social workers—but is addressed primarily to ministers of religion, especially Protestant ministers.

It is pointed out that, in former ages, the care of the sick in hostels or hospitals was a religious function and that spiritual aid was always a part of such care. In the development of modern scientific medicine, particularly in hospitals, spiritual care has found no place and the religious needs of a patient are not met. It is suggested that doctors do not welcome ministers in the sick room or merely tolerate them, yet the emergencies of

illness may force a patient, hitherto quite indifferent to religious or spiritual values, to turn over a new leaf and to acquire for the first time a reasonable amount of self-control, of regularity in his physical habits, or of insight into his own emotional crises. At such a turning point he can profit by the counsel of a minister of religion.

Dr. Cabot, who writes from the medical viewpoint, insists that the spiritual aids given by ministers to the sick are of great value from the purely therapeutic aspect. He considers that fortitude, patience, confidence, hope and emotional stability are thus fostered and that these, as well as the banishment of fear, strengthen the patient in his fight against disease. He also thinks that what most physicians call the "*vis medicatrix naturae*" is really the "*vis medicatrix Dei*." Bearing this in mind, doctors should welcome ministers to sick rooms and hospital wards and should in every way cooperate with their work.

The present volume deals especially with the methods by which the minister should approach and handle the sick and the points of alliance between doctor and minister, each keeping to his own field but being mutually helpful and conscious of the duality of the patient's humanity. The book should be an inspiration to both the medical profession and the clergy, whose joint understanding and skill are so necessary in times of illness and suffering.

Lorenz: Autobiography

MY LIFE AND WORK. The Search for a Missing Glove. By Dr. Adolf Lorenz, Hofrath and Professor of Orthopedic Surgery, University of Vienna. New York and London: Charles Scribner's Sons. 1936. Price, \$3.50.

This is the frank and easy life story of a very great, but essentially simple and wholesome man, written with simplicity, good humor, the tolerant attitude of a large soul matured by many years of active work in the service of men, and with astonishing clarity, considering the fact that English is, to him, a "foreign language."

Here are delightful and moving reminiscences of his boyhood, his life as a choir-boy in the Monastery of St. Paul, his years as a struggling medical student, and finally his ascent to the high places in his profession, as the practical founder of a new specialty—orthopedic, or "bloodless," surgery—which work was forced upon him by the fact that his skin could not tolerate the spray of phenol, in which all ordinary surgeons worked in the Listerian period. The well-chosen biographic illustrations add interest.

Here, too, are intimate, personal and pungent estimates of some of the great ones in medical history, whose names are spoken almost with bated breath, even today. Incidentally, there is no small amount of colloquial instruction in orthopedics—but that is purely beside the point, which is to tell the romantic tale of how the son of a Silesian harness-maker became one of the most

famous surgeons in the world, a professor, and Counselor of the Government (*Hofrath*). His description of his audience with the Emperor, when this latter title was conferred, is especially amusing.

Here is a book which any physician (or any layman, for that matter) may well keep within reach of his reading chair, to pick up at odd moments, for while the story is sufficiently consecutive for continuous reading, it is largely a collection of anecdotes and reminiscences, which may be opened anywhere and read, a page or two at a time, with pleasure.

Deschamps: Royat Treatment in Cardiovascular Disease

ROYAT TREATMENT IN CARDIOVASCULAR DISEASE. By Pierre Noel Deschamps, M.D. (Paris), Assistant Physician in Charge of the Cardiological Department, Lariboisière Hospital, Paris. Baltimore: William Wood & Company. 1935. Price, \$2.00.

The author describes the thermal carbon dioxide treatment of cardiovascular disease, practiced at the Royat springs in Auvergne, France, of which he is the physician in charge. His study of the clinical and physiologic effects of natural carbon dioxide baths has led him to the conviction that natural radioactive carbon dioxide water, such as that of the Royat springs, is a powerful therapeutic agent, both vasodilator and cardiotonic, which should be of particular benefit to patients suffering from hypertension, arteriosclerosis and spasmodic arterial affections. These benefits, which the author has constantly observed during the course of his practice at Royat, are set forth in this monograph.

Although the carbon dioxide treatment of circulatory disorders is well known, as witnessed by the extensive bibliography given by the author, it seems rather strange that hydrology for this class of diseases should be rather neglected in the United States in which several good medicinal springs of the kind are available. Perhaps perusal of a book of this kind may arouse interest in the subject. There are plenty of patients with hypertension, and physical therapy, *a priori*, should seem at least as beneficent as any of the medicinal methods in vogue.

Year Book of General Medicine

THE 1935 YEAR BOOK OF GENERAL MEDICINE. Edited by George F. Dick, M.D.; Laurason Brown, M.D.; George R. Minot, M.D., S.D., F.R.C.P., (Hon.) Edin.; William B. Castle, M.D., A.M.; William D. Stroud, M.D.; George B. Eusterman, M.D. Chicago: The Year Book Publishers. 1935. Price, \$3.00.

Every physician needs to have in his library, for reference, an annual review of the progress made in various fields of medical practice. The "Year Book Series" meets this need very well.

The present volume on General Medicine

contains, in its 848 pages, abstracts from 571 significant contributions in 137 scientific publications, dealing with 161 diseases which the physician sees most frequently; also 202 personal comments by the editors, to help in forming sound opinions. The book is of handy size, the type is clear and readable, and the indexes of subjects and authors are adequate.

Surgical Clinics of North America

THE SURGICAL CLINICS OF NORTH AMERICA. February, 1936. Volume 16—Number 1. Chicago Number. Philadelphia and London: W. B. Saunders Company. 1936. Price, per year, paper \$12.00; cloth \$16.00.

The February, 1936, number of the Surgical Clinics of North America is devoted to contributions from Chicago clinics and contains several very interesting items. The number opens with a symposium on cancer of the uterine cervix, comprising seven papers on symptoms, diagnosis and treatment. Dr. A. D. Bevan writes an excellent paper on "The Present Status of the Problem of Appendicitis." Good papers are also furnished by Dr. G. de Tarnowsky and Dr. P. Lewin, the former on the "Surgery of Closed Abdominal Wounds" and the latter on "Low Back Pain and Symptomatic 'Sciatica'." The general practitioner should also find the following articles of special value: "Sprains," by Dr. W. K. Jennings; "The Management of Fractures of the Jaws," by Dr. F. B. Moorehead; "Treatment of Facial Palsy," by Dr. A. Verbruggen; "The Treatment of Torticollis," by Dr. E. Hauser; "Gangrene," by Dr. G. de Takáts; and "The Injection Treatment of Hemorrhoids," by Dr. C. L. Martin.

Including the seven papers in the symposium, there are altogether twenty-seven papers in this issue.

Concip Calendar

THE CONCIPI CALENDAR, Life-Time Universal Type. Endorsed by Dr. H. Knaus. Hobart, Ind.: The Concip Co. 1936. Price, \$5.00.

This substantially made device has been prepared to enable women who desire to make use of the "safe time" or "rhythm" method of birth control, and is so constructed that it can be adjusted for women whose menstrual periods come at intervals of from 18 to 40 days. It is inclosed in an oilcloth case, with calendar cards from 1936 to 1941, having space on the backs for recording the menstrual periods, so as to preserve an adequate record. A small pencil is also included. The accompanying directions stress the point that this method is unreliable except for those women who have kept accurate records for 6 months or more and whose periodicity does not vary more than a few days. The importance of frequent conferences with the family physician is also stressed.

This should prove adequate equipment for those who wish to practice this physiologic method of contraception; but its reliability is by no means fully established.

Chideckel: Sex Information

THE SINGLE, THE ENGAGED, AND THE MARRIED. By Maurice Chideckel, M.D. With a Preface by T. Swann Harding and an Introduction by Dr. Benjamin S. Abeshouse. New York: Eugenics Publishing Company, Inc. 1936. Price, \$2.50.

In spite of a great deal of loose conversation, these days, there are still many young men and women, married and unmarried, who are profoundly ignorant of the psychologic facts regarding sex relationships. For such (and all should have this information before marriage), this book is an excellent one. The author has discussed the subject in a serious and scientific manner, with many reports of concrete cases, but in language so clear and direct that any high-school graduate can understand it. It is not a manual of erotic technics (in fact, such matters are not here considered at all), but a collection of basic instruction regarding the reasons why many marriages go wrong, with sound and intelligent suggestions for remedying the unsatisfactory conditions.

Here is a book which every family physician should have at hand, both for his own information and to loan or recommend to young people (and even many older ones) who consult him regarding difficulties in their sex lives.

Saur: Differential Diagnosis

KLEINES Merkbuch zur Differentialdiagnose. Für Aerzte und Studierende. (Small Notebook for Differential Diagnosis. For Physicians and Students). By Dr. Johann Saur. Pp. 349. Berlin and Vienna: Urban and Schwarzenberg. 1935. Price: Marks 9.00.

This is a rather original effort to group principal symptoms in a manner to facilitate diagnosis in 63 clinical entities. The book is divided in about two equal parts. In the first part the affections are discussed from the diagnostic point of view and directions are given to prevent diagnostic errors through pitfalls. The second part is a large alphabetic register of symptoms, most of which are provided with clues, with the page numbers of the first part to which they have reference. Much material is squeezed between the covers, which was made possible by utilizing many abbreviations, which are explained in a special register.

The author has gleaned from lectures by distinguished internists and has "card indexed" key symptoms carefully and exhaustively. Like similar efforts, the book is presented as an aid for quick orientation, and for this purpose it is far superior to those of a similar character that have appeared in the German language.

G. M. B.

New Books Received

The following books have been received in this office and will be reviewed in our pages as rapidly as possible.

THE EYE AND ITS DISEASES. By 82 International Authorities. Edited by Conrad Berens, M.D. Philadelphia and London: W. B. Saunders Company. 1936. Price, \$12.00.

THE MASSEUR'S COMPANION. A Concise Survey of the Medical and Surgical Conditions Amenable to Massage, with an Explanation of the Actual Massage Treatment Indicated. By Arthur J. Bowman, M.I.C.M., B.P.A., M.B.A.Ch. London: The Actinic Press, Ltd. 1936. Price, bound leather cloth, 5/-; paper boards, 4/-.

EXOPHTHALMIC GOITER AND ITS MEDICAL TREATMENT. By Israel Bram, M.D. Foreword by R. G. Hoskins, Ph.D., M.D. 2nd Edition, Completely Revised and Enlarged. St. Louis: The C. V. Mosby Company. 1936. Price, \$6.00.

PATHOLOGICAL PHYSIOLOGY AND CLINICAL DESCRIPTION OF THE ANEMIAS. By William Bosworth Castle, M.D., S.M. (Hon.), and George Richard Minot, M.D., S.D. (Hon.), F.R.C.P., Edin. (Hon.). Edited by Henry A. Christian, A.M., M.D., LL.D., Sc.D. (Hon.). Reprinted from Oxford Loose-Leaf Medicine. New York: Oxford University Press. 1936. Price, \$3.00.

THE OXFORD MEDICINE. By Various Authors. Volume VII, Psychiatry for Practitioners. Edited by Henry A. Christian, A.M.,

M.D., LL.D., Sc.D. (Hon.). New York: Oxford University Press. 1936. Price, \$10.00.

THE TEACHING OF PLATONIUS. By Harriet H. Dallas, M.S. 2nd Series. Boston: Marshall Jones Company. 1936. Price, \$2.00.

SYNOPSIS OF DISEASES OF THE HEART AND ARTERIES. By George R. Herrmann, M.D., Ph.D. St. Louis: The C. V. Mosby Company. 1936. Price, \$4.00.

HAUTTEMPERATUREN. By Johannes Ipsen. Copenhagen, Denmark: Levin & Munksgaard. 1936. Price, \$5.50.

NATURAL IMMUNITY. Its Curative Chemistry in Neoplasia, Allergy, Infection. A Brief Survey. By Wm. F. Koch, Ph.D., M.D. 2nd Edition. Detroit: Dr. Wm. F. Koch. 1936.

ORTHOPEDIC SURGERY. By Walter Mercer, M.B., Ch.B., F.R.C.S. (Edin.), F.R.S. (Edin.). With a Foreword by John Fraser, M.C., M.D., Ch.M., F.R.C.S.E. 2nd Edition. Baltimore: William Wood & Company. 1936. Price, \$10.00.

THE OPERATIONS OF SURGERY. By R. P. Rowlands, M.S. (Lond.), F.R.C.S. (Eng.) and Philip Turnaer, B.Sc., M.S. (Lond.), F.R.C.S. (Eng.). Volume I, The Upper Extremity, The Head and Neck, The Thorax, The Lower Extremity, The Vertebral Column. 8th Edition. Baltimore: William Wood & Company. 1936. Price, \$10.00.

MEDICAL NEWS



Courtesy, *Am. J. Pharm.*

Passing of John Uri Lloyd

DR. JOHN URI LLOYD, one of the outstanding pharmacologists and truly remarkable men of this generation, passed to his rest April 10, 1936, at the ripe age of 87 years.

Although he never received a regular academic degree from a college, he was granted five different honorary degrees—Ph.M., Ph.D., LL.D., D.Sc., M.D.—by five different colleges; received the American Pharmaceutical Association gold medals (1882, 1892, 1899), the Remington honor medal (1920), and the Proctor Award of the Philadelphia College of Pharmacy and Science (1934).

From 1883 to '87 he was professor of pharmacy at the Cincinnati College of Pharmacy, and from 1878 until his retirement, professor of chemistry at the Eclectic Medical Institute. The list of his contributions to scientific literature would fill a column.

The scientific world will remember him as a great and productive researcher in all phases of plant chemistry and as the founder of the Lloyd Library and Museum. His many students will remember him as an inspired and inspiring teacher, who lifted them out of the ruts of depressing materialism into the high, clear ranges of the true inner science. Thousands who never saw him will cherish the memory of the author of the richly hu-

man "Stringtown on the Pike" and the fascinatingly metaphysical and scientific "Edidorhpa." Those who knew him will feel a deep personal loss in the passing of this modest, altruistic, lovable man, who was the antithesis of regimented officialism and canned efficiency and the epitome of all that science stands for.

Mississippi Valley Medical Society

THE Mississippi Valley Medical Society will hold its second annual meeting at Burlington, Iowa, September 30 and October 1 and 2, 1936. This young organization gives great promise, and those who attend the meeting are assured of three days of real postgraduate instruction, so it will be well to make arrangements now to be on hand at that gathering of medical men.

Interstate Postgraduate Assembly

IT IS NOT too soon to make arrangements to attend the International Assembly of the Interstate Postgraduate Medical Association. The time is October 12 to 16, 1936; the place is St. Paul, Minn., where the hotels are rapidly filling up for that occasion. Better make reservations now.

Passing of Dr. Mason*

Dr. James Tate Mason, of Seattle, Wash., who was installed as president of the American Medical Association in his absence (due to his critical illness), on May 12, 1936, passed to his rest, at the age of 55 years, on June 20. Before his death he was awarded the Association's presidential medal. He will be succeeded in the presidency by Dr. Charles Gordon Heyd, of New York, the newly elected vice-president.

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Mexico Honors U.S. Surgeons

AT a recent meeting of the Surgical Academy of Mexico, Dr. Charles Mayo, of Rochester, Minn., and Dr. Max Thorek, of Chicago, were elected Academicians of that organization. Last year this honor was tendered to Lord Maynihn, of Leeds, England, and Prof. Bastianelli, of Rome, Italy.

*See CLIN. MED. AND SURG., Sept., 1935, page 419.

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| V-794 | <i>Journal of Intravenous Therapy.</i> Loeser Laboratory. | V-885 | The Value of Rolicin (oleum ricini). Walter Janvier, Inc. |
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- V-936 Endo-Virosterone. Endo Products, Inc.
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- V-938 Azochloramid. A Newly Discovered Chlorine Germicide Suitable for Treating, Packing or Irrigating Infected Wounds and Cavities. Wallace & Tierman Products, Inc.
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- V-942 Taurocol Compound with Digestive Ferments. The Paul Plessner Co.
- V-943 Tannic Acid Resumé of Therapy. Mallinckrodt Chemical Wks.
- V-944 Abbott Pollen Products. Abbott Labs.
- V-945 Treatment of Ring Worm and Epidermophytosis ("Athlete's Foot") with Phenylmercuric Nitrate Ointment. Associated Physicians Labs.
- V-946 Restoring the Impulse. Wm. R. Warner & Co., Inc.
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